FEBRUARY 26, 1955

Vol. 148 — No. 9

MANAGEMENT • PLANT • TRAFFIC • COMMERCIAL • LEGAL • ACCOUNTING •

Telephony

THE JOURNAL OF THE TELEPHONE INDUSTRY

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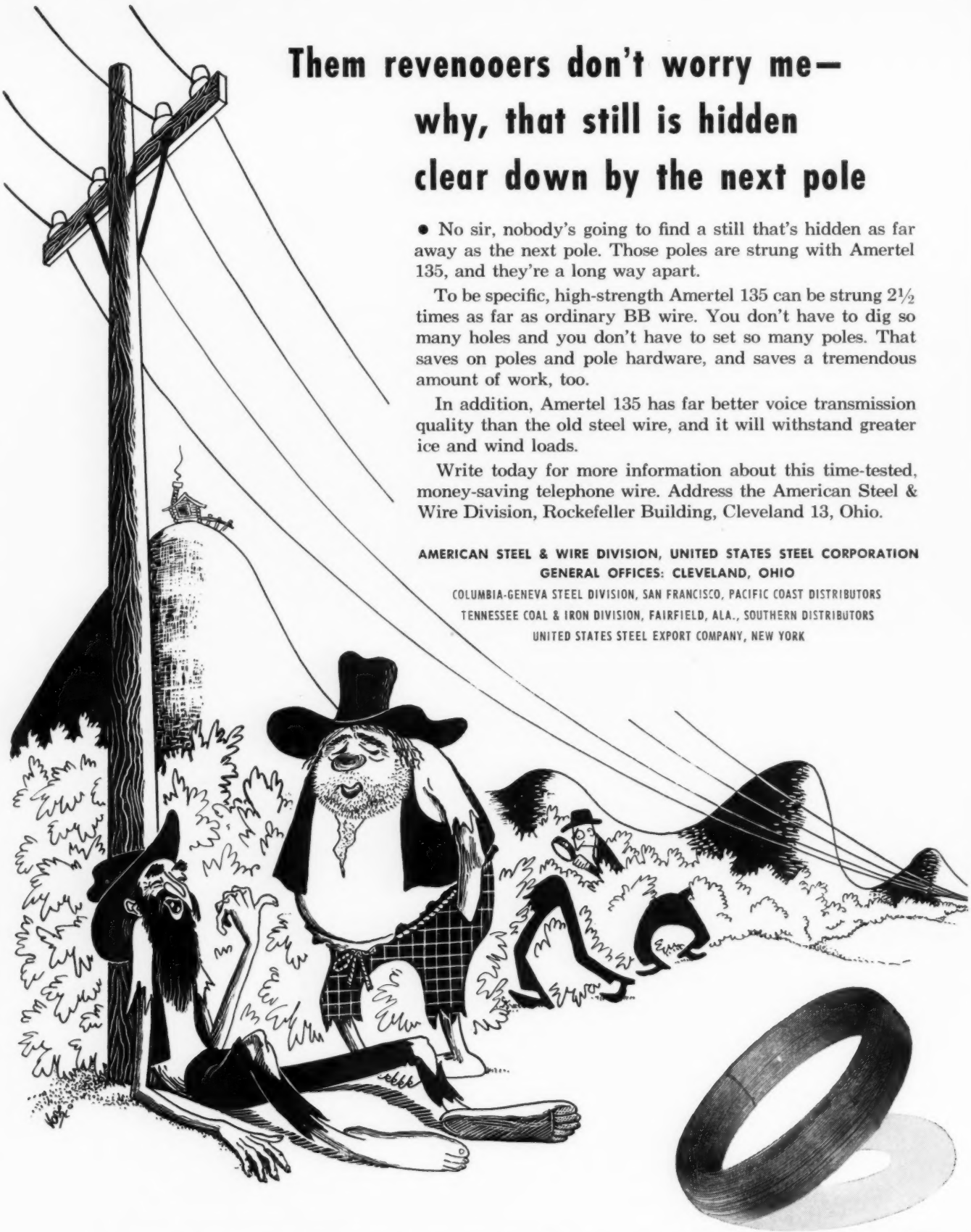
XUM



Them revenooers don't worry me— why, that still is hidden clear down by the next pole

• No sir, nobody's going to find a still that's hidden as far away as the next pole. Those poles are strung with Amertel 135, and they're a long way apart.

To be specific, high-strength Amertel 135 can be strung 2½ times as far as ordinary BB wire. You don't have to dig so many holes and you don't have to set so many poles. That saves on poles and pole hardware, and saves a tremendous amount of work, too.

In addition, Amertel 135 has far better voice transmission quality than the old steel wire, and it will withstand greater ice and wind loads.

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A "crew" of Dow chemicals, used separately or as a team, will cut your maintenance costs to a new low. Esteron® 245 is highly effective for year-around brush control when used as a foliage spray or for basal bark and stump treatment. Esteron Brush Killer is widely used as a foliage spray for brush control.

In addition, Dow offers two new products to solve specific vegetation control problems. Kuron, new Dow brush killer containing silvex, has shown good results on post oak, blackjack oak, white oak, Northern pin oak and other oak species as well as red and hard maples. Where grass control is desirable in poleyards and around substations, Dow Dalapon Sodium Salt 85%, new *systemic* grass killer, is recommended. It can be used in combination with 2,4-D to control *both* broad-leaved weeds and grass. Ask your supplier how Dow products can cut your maintenance costs and help you get positive weed and brush control. Or write THE DOW CHEMICAL COMPANY, Agricultural Chemical Sales Department, Midland, Michigan. In Canada: Dow Chemical of Canada, Limited, Toronto, Canada.

you can depend on DOW AGRICULTURAL CHEMICALS DOW

XUM

FLASHES AND PLUGS

FELICITATIONS. Thomas P. Bryan, Jr., mayor of Richmond, Va., recently reported the following telephone call from Claggett, Ontario.

"Is this the governor of Virginia?" the caller inquired.

"No," replied Bryan, "I'm mayor of Richmond."

"You'll do," the caller assured. "I just called to tell you I've been reading about a man you have down there—Stonewall Jackson. I certainly admire the way he marched his men and fought.

"I want to tell you that you are doing a good job down there. Keep it up. Good-bye."

• • •

GOOD WILL TOUR. When it comes to whipping up a tasty lunch of a sandwich and a glass of milk, you just can't beat the Atlantic City, N. J., Police Department.

A local five-year-old proved this recently when he arrived home from kindergarten to find his mother still downtown shopping. The boy is a potential taxpayer, and he got right on the telephone to headquarters.

"Will you send a policeman to get my lunch?" he asked. "My mommy's not home."

Two radio car cops rolled up and did the honors.

• • •

RETURN ENGAGEMENT. A 41-year-old woman in Palestine, Tex., locked up for drunkenness, broke through a skylight of the city jail, climbed down a ladder to an open window, then slipped down the municipal building stairs to the street.

About an hour later she returned.

"I got out," she announced, "to use the telephone because you wouldn't let me use one."

• • •

DIAL M FOR MENU. When a housewife in Zurich, Switzerland, is at her wits' end about what to feed the family all she needs to do is pick up the telephone and dial 163.

The "talking menu" service will give her suggestions for the main meal of the day and recipes for the dishes. If she gets "stuck," or wants help on some other cooking problem, she can call one of the three experts employed by the Zurich gas company directly and get their advice. These ladies, two teachers of cooking and one professional housekeeper, record the five-minute daily service.

The "talking menu" was started during the war when food got scarce in Switzerland. The gas company got so many calls for advice on how to "make do" with rationed materials that the staff was overburdened.

Now food is plentiful in Switzerland and only about 1,000 calls a week are registered. The idea seems to be spreading, though. England's only independent telephone system announced recently that it will install an automatic "dial M for menu" service to aid housewives.

It was a bachelor's idea.

CIRCULATION

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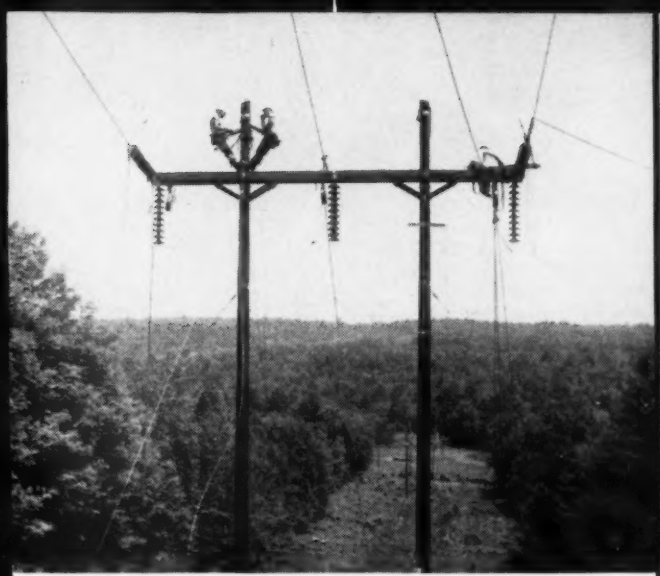
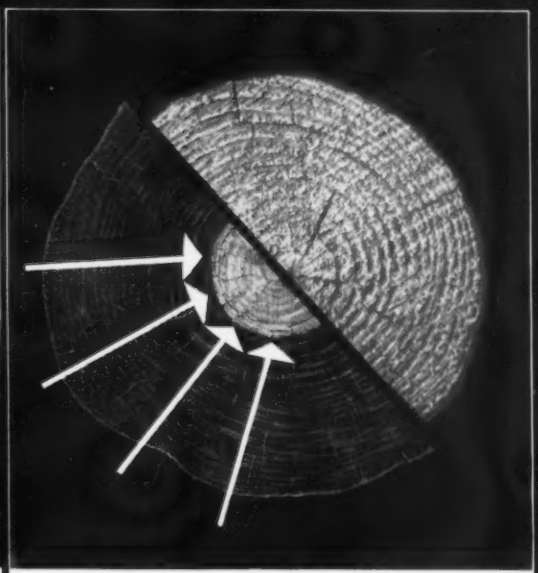
XUM

Another utility case history

Clean Penta-preserved poles won't stain or bleed



PUBLIC SERVICE CO. OF NEW HAMPSHIRE specifies clean Penta protection for western red cedar poles, Douglas fir crossarms. Since 1951, this company has used Penta-treated wood to resist decay and wood-boring insects. Penta gives wood installations at least 4 times longer life.



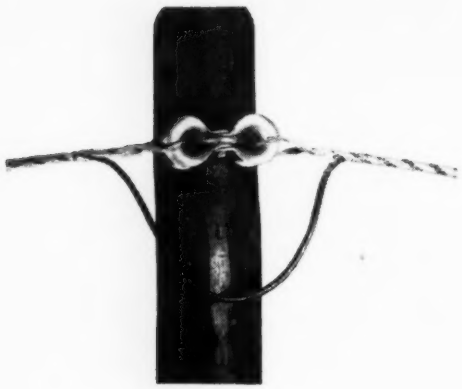
PENTA GOES DEEP! Cross-section of two poles—Penta-treated at left, untreated at right—shows depth of Penta penetration. Penta effectiveness is as high after 20 years as it is after one month. Penta provides lasting economy!

PENTA PROTECTS WORKMEN, TOO! Penta stays put, will not bleed or leach out of wood. Penta-treated wood is clean, does not "burn" hands or stain clothing and, when properly treated, it is odorless.

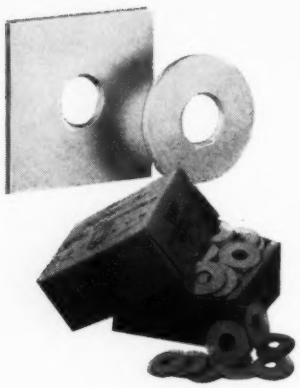
SPECIFY PENTA for POLES, CROSSARMS, TRANSFORMER PLATFORMS, BRACES, CONTROL BOXES, PLANKING. More than 85 treating plants will apply Penta for you. Write us for this list, and for "Poles and Crossarms" booklet. Organic Chemicals Division, MONSANTO CHEMICAL COMPANY, Box 478-L-2, St. Louis 1, Missouri.

MONSANTO
CHEMICALS — PLASTICS

SERVING INDUSTRY...
WHICH SERVES MANKIND



Dead-Ends for Plastic Cable—Specially designed for thermoplastic insulation, this type of fitting protects while firmly holding cable in elongated grip in which the unit pressure is small because of large area of gripping surface. PREFORMED LINE PRODUCTS COMPANY.

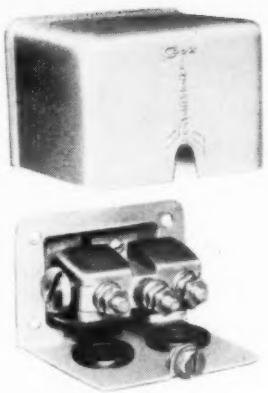


Complete Line of Hardware to meet all outside telephone plant requirements. Joslyn's convenient package of small hardware—like the round washers shown above—promotes better "housekeeping" in the storeroom and on the line truck. JOSLYN MFG. & SUPPLY CO.

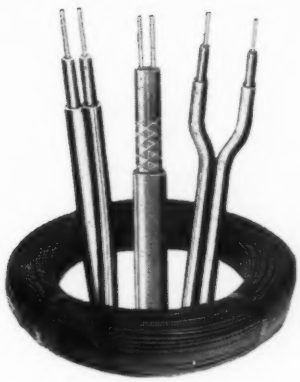
Exchange, Quadded and Composite: Type 775-P for Aerial, Duct Service, Type 775-AP Armored for Direct Burial, Type 775-P-SS Self-Supporting using Channell Supports, Type 2094 to REA Spec. PE-14. Rural Distribution Cable. ANSONIA WIRE & CABLE CO.

KELLOGG *for Line Supplies*

• Write, 'phone or wire all orders for Line Supplies to your nearest Kellogg Warehouse. Kellogg's stocks of guaranteed line supplies are complete--shipments are made immediately. Save time and money--send *one* order to *one* source--KELLOGG!



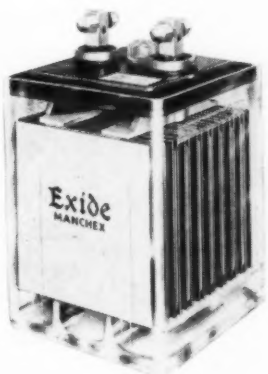
The new Cook Interceptor is a fuseless, carbon to carbon arrester which grounds power cross surges and lightning. Mini-Gap arresters are mounted in a moisture resistant and dirt-proof receptacle — no grounds due to dirt or insects. COOK ELECTRIC COMPANY.



Long Service Life and Low Plant Costs go hand-in-hand with the installation of ENDURPRENE — The Neoprene Drop Wire available in both Copperweld and Bronze. This flexible and easy to handle wire is made by GENERAL INSULATED WIRE WORKS, INC.

Generates harmonic, synchromonic or Decimonic series of frequencies. This ringing machine gives first-rate performance through long periods of service, yet is low in initial cost. Made by HOLTZER-CABOT TELEPHONE EQUIPMENT DIVISION, National Pneumatic Co. Inc.

A Tree Guard made of thermoplastic tubing, helically slit, and cut to three foot lengths—protects drop wire from abrasion where tree contacts are unavoidable. Guard can be spiraled on wire already in place. Made by DETROIT MACOID CORPORATION.



Time Proven—for 62 years Exide Batteries have served the telephone industry —the Manchester Positive plate with its button type construction provides long life. Exide meets all battery requirements. Exide Industrial Div., ELECTRIC STORAGE BATTERY COMPANY.

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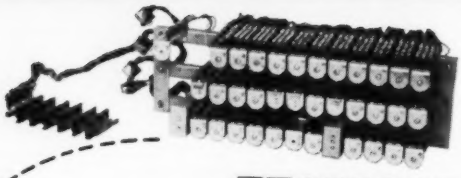
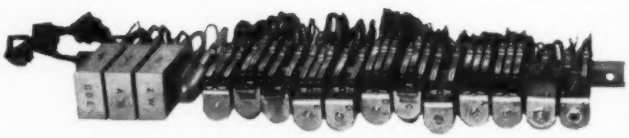
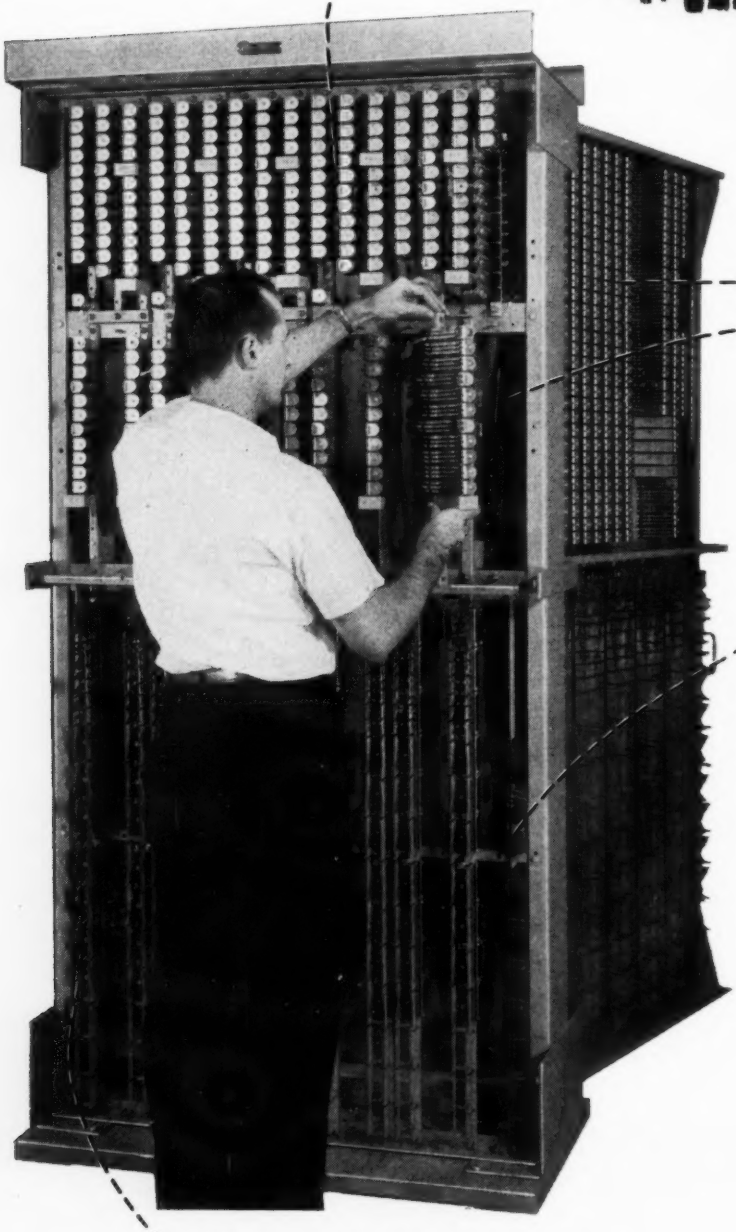
UNIT



NEW JACK-IN
INTERRUPTER
STRIP



NEW JACK-IN
DUPLEX TRUNK UNIT



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MULTIPLE STRIP

Retaining and improving
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NORTH

NEW TERMINAL STRIP
Cabled From TOP
Can be swung free at Handy Level

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A complete *All-Relay* Jack-in Design

This is the new model of CX equipment with Jack-in components, designated as CXJ. Every advantage upon which the fine reputation of North CX is built is engineered into the CXJ type PLUS the special features listed here, not previously available.

It is important to note that North CXJ, in addition to the advantages listed, saves space as well as time in installation and in maintenance. 100 lines with 15 links of CXJ are contained in a cabinet 40" wide 93" high and 22" deep. The complete CX All-Relay function, so thoroughly proved in use, is accomplished by simplified circuitry with fewer relays.

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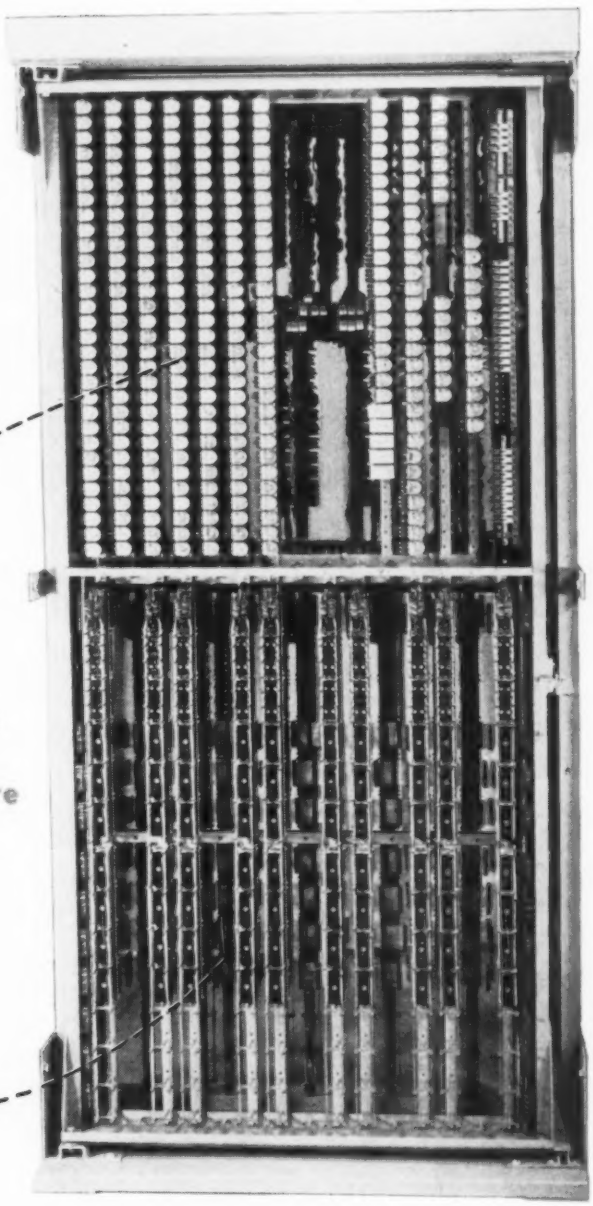

NORTH CX advantages

THERE'S A NEW BULLETIN READY... HAD YOUR COPY?

THE NORTH ELECTRIC MANUFACTURING COMPANY

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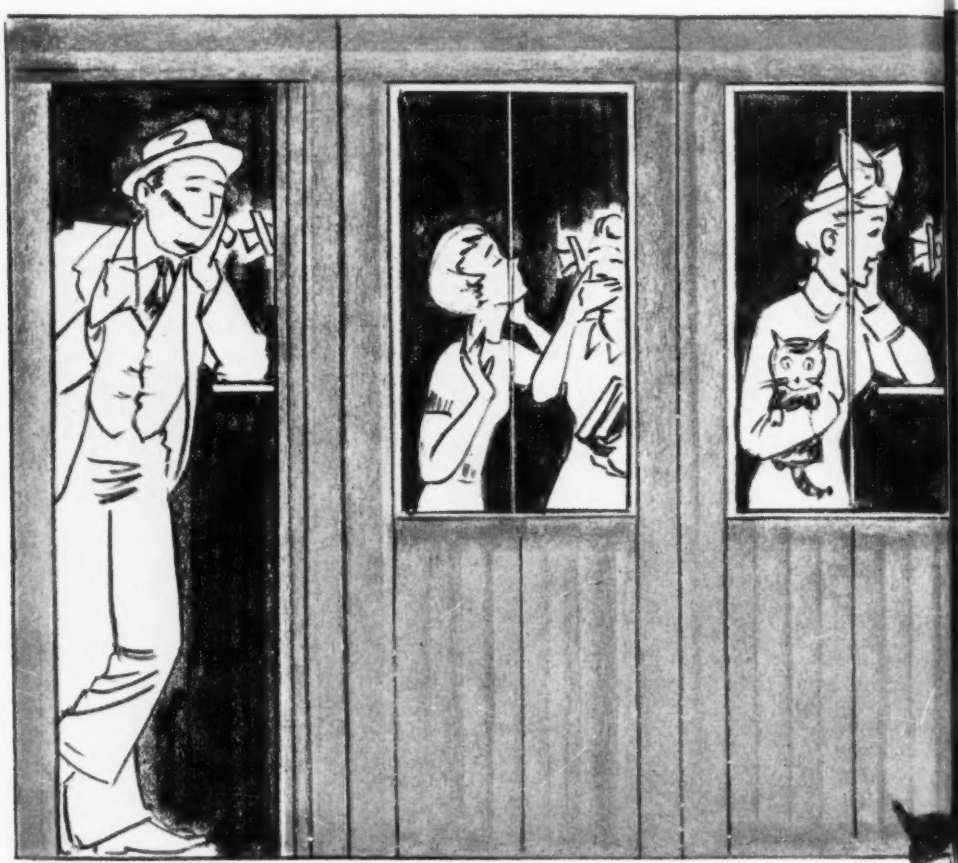
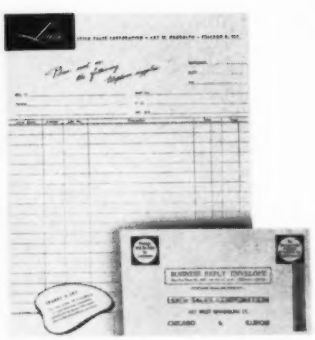
Keep 'em talking





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GENERAL SYSTEM

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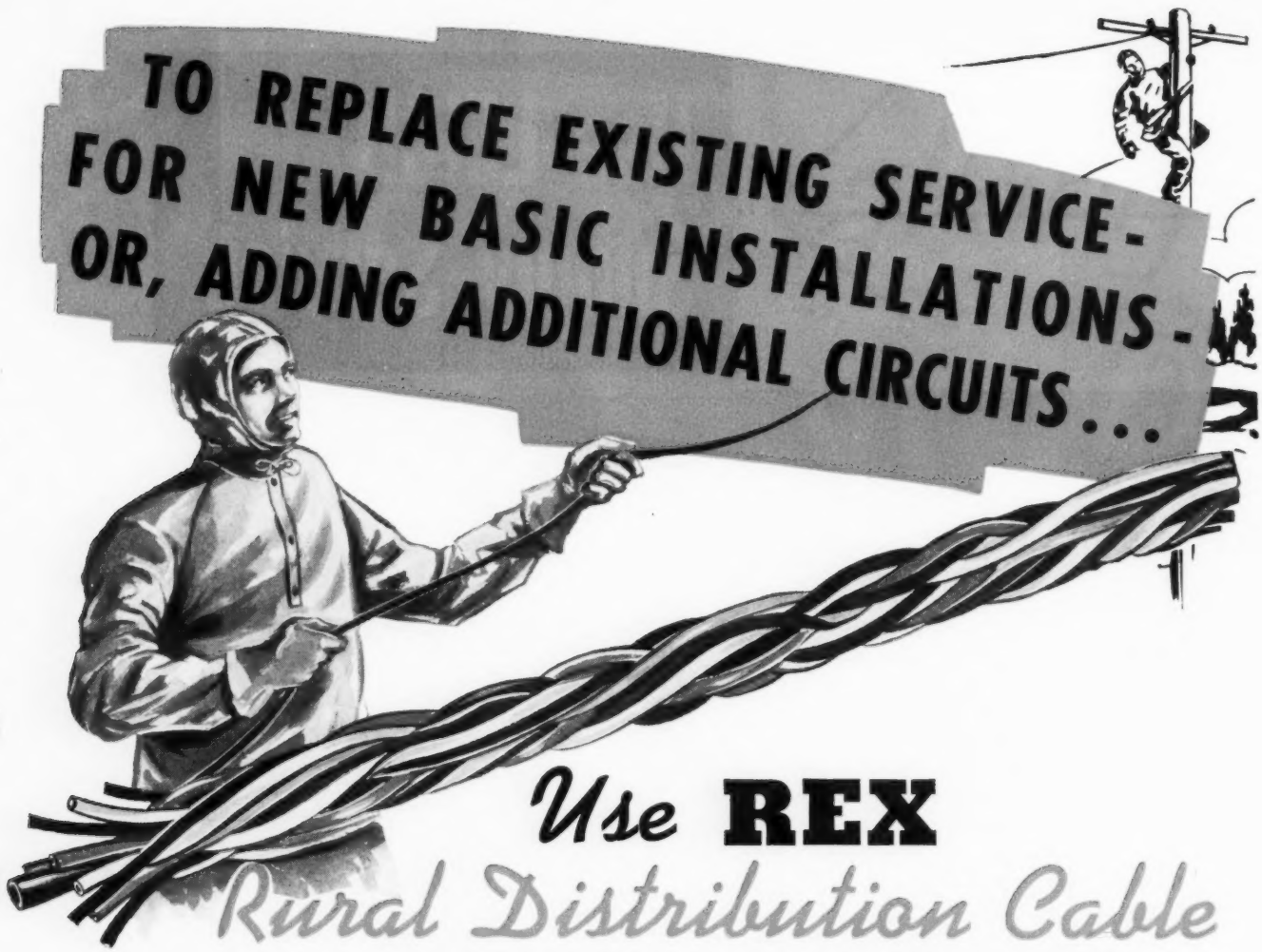

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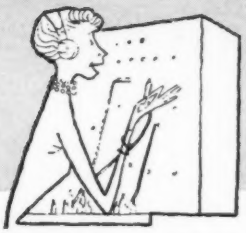

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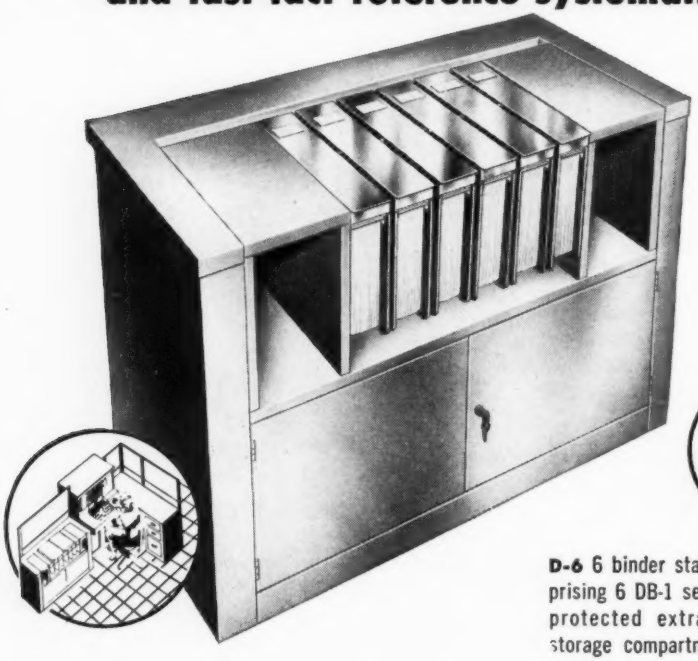

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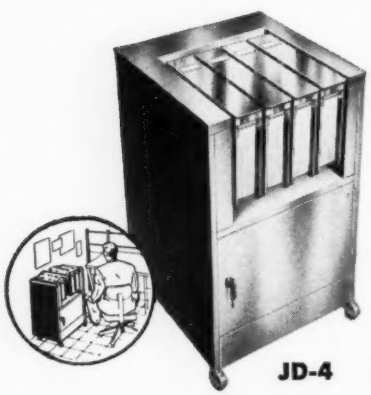

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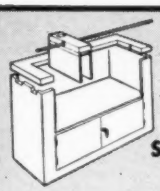

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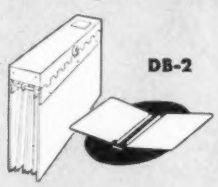
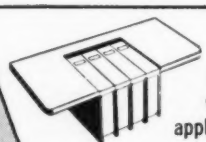


DB-2

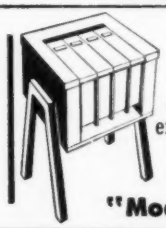
Inside Dimensions 9" h.—1⅜" w.—11¼" d.

Other Models Available



For wall application.

W-4 – $74.95
"Wallster"



For the contemporary executive office.

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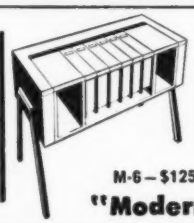

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TELEPHONE DIRECTORY ADVERTISING EXCLUSIVELY

by FRANCIS X. WELCH WASHINGTON EDITOR

New telephone co-op association formally launched at NRECA convention. . . . Convention resolution takes crack at Hoover Commission Task Force. Telephone companies' cost of highway relocation higher than any other utility industry.

THE MAIN POINT of interest to the telephone industry, growing out of the recent Atlantic City convention of the National Rural Electric Cooperative Association (NRECA) is that a new rural telephone cooperative association has been formally launched. This was not an unexpected development. In fact, it happened right on schedule. It was anticipated and discussed in some detail in this department last spring (TELEPHONY, June 19, 1954).

The new association is naturally an off-shoot of NRECA and will be ostensibly independent of the mother organization. It is the outgrowth of a resolution passed at the 1954 convention of the NRECA which called for the formation of a national association of rural telephone cooperatives along the lines of NRECA itself. Last spring an organization meeting was held to devise a structural framework for the organization, so that a definite report could be made at the 1955 convention of the NRECA, which was held at Atlantic City on Feb. 14 to 17.

The new president of the National Telephone Cooperative Association will be Riggs Shephard, former REA aide in the Washington, D. C., headquarters, who has been more recently connected with rural electric cooperative operations in Texas.

(Other officers are: Vice president, Glenn Bergland of Thompson, Iowa, manager of the Winnebago Cooperative Telephone Association, and secretary-treasurer, Carol Claggett of Bethel, Mo., president of the Mark Twain Rural Telephone Co.)

The setup of the new rural co-op organization is still very tentative. It will be limited to rural telephone cooperatives, presumably those which are borrowing from REA. In other words, commercial telephone companies are not going to be welcome as members. Of course, the commercial telephone companies already have their own association in the form of the United States Independent Telephone Association.

What the NRECA did at its Atlantic City convention was to approve of the formal separation of the two groups. In addition to President Shephard, the other officials and directors of the new association are drawn pretty heavily from NRECA's old telephone committee. Presumably, the committee will now pass out of the NRECA into the new set-up.

As far as policy on legislation and other matters is concerned, the new rural telephone cooperative group can reasonably be expected to follow a line generally parallel with that of the mother organization, NRECA. But, in the course of time, it is only natural that the NTCA will be getting into problems of its own making—such as REA telephone loan procedures, rural telephone equipment, and all the other matters which would be the natural field for such an association to cover.

Higher REA Interest Rates?

Another matter discussed, mainly with respect to the work of the resolution committee, at the NRECA meeting in Atlantic City, was the rumor that a special task force of the Hoover Commission is going to recommend higher interest rates on REA loans. Presumably, this would cover both rural telephone and rural electric loans.

One possible source of this rumor was the publication on Feb. 14 in a well-known political gossip column, syndicated in many newspapers, of an ostensible "leak" of information about the forthcoming task force's report. According to this "inside" story, the Hoover Commission Task Force will recommend a rise in the interest rate on REA loans from the present statutory level of 2 per cent to 4.5 per cent.

The Hoover Commission Task Force report is a closely guarded secret, and even after it has been made to the central government reorganization group—the Hoover Commission—it must be adopted or approved before it becomes part of the commission's report. This writer has no advance knowledge about what the task force report will contain, but he has a suspicion that the information contained in the so-called "leak" might have been inspired from sources closer to Atlantic City than to Washington, D. C. For one thing, it was nicely timed to coincide with the opening of the NRECA convention at Atlantic City. For another thing, it served to get the REA electric co-op representatives into a state of consternation. Naturally, they are rightly concerned about the possibility that REA interest rates could be more than doubled.

Judging solely from the obvious factual background, your correspondent believes that the Hoover Task Force *is* likely to recommend a somewhat more realistic rate on REA loans than the present 2 per cent. The government is already paying more than that on borrowed funds in some categories, such as Series E Savings Bonds. But it seems incredible that the Hoover Task Force would stick its neck out and propose such a specific rate as 4.5 per cent. Such an increase would just about put REA loan operations out of business, in both the rural telephone and rural electric fields.

What's more, the present Congress would not even think seriously about going along with such a boost in the interest rate on the politically popular REA loans. On the contrary, the very suggestion of such a proposal—however sound it might be on the basis of economic merit—would make the administration proposing it (Eisenhower's, of course) the natural target of the public power bloc. With some Democrats in Congress frantically trying to keep the political war drums beating on the anti-utility issue, such

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a proposal from the administration would be manna from heaven.

Therefore, it is hard to believe that the Eisenhower administration would be so politically unrealistic as to concur with a radical boost in REA interest rates, even if the task force did propose it and the Hoover Commission finally approved it. On the contrary, both the Eisenhower administration and the federal REA top officials have, so far, been cold to any proposals for increasing REA's interest rates. That is why your reporter suspects that the "leak" on the task force report might simply have been a propaganda trigger designed to stir up indignation among the rural electric co-op representatives. The more indignation the REA co-ops generate, of course, the more they are likely to join wholeheartedly in a national association and allied movements.

Now that virtually every farm area in the United States is within easy access of rural electric service, there have been signs of enthusiasm waning among the grass-roots cooperatives on the matter of supporting and accepting financial burdens and policy dictation that a national association inevitably entails. Nothing could be better designed to galvanize the co-ops with a new respect for the purpose and usefulness of their national association than a serious threat of more than doubling the interest rates on REA loans.

NRECA Resolutions

The fact that NRECA leaders had some pretty definite ideas about what the Hoover Commission Task Force report would contain on REA is seen in a very revealing resolution which was adopted at the Atlantic City meeting on Feb. 17. The resolution was entitled "Abolition of REA." In this connection, it will be recalled, some of the congressional members of the Hoover Commission are pretty close to, if not members of, the public power bloc in Congress. When the Hoover Commission was first formed, the public power bloc made an outcry that the internal organization of the commission was "loaded" against the advocates of federal expansion and public ownership and operation of electric power activities. So it may well be that, if there was any "leak" on the forthcoming report of the task force on Federal Lending Agencies (which covers REA), the public power bloc liaison with congressional members of the Hoover Commission might supply the answer.

According to this NRECA resolution the Hoover Commission Task Force will positively recommend:

(1) That REA be abolished in favor of a federal corporation for administration of loans, similar to the old U.S. Reconstruction Finance Corp. which made loans to private business.

(2) That this new corporation should have to raise its funds for loans from private sources, by floating debenture bonds at prevailing interest rates.

(3) It would also have to include processing and other administrative costs as part of the sum to be repaid under any REA loan.

(4) That no loans would be made for any project which private industry would be willing to construct.

The resolution then goes on to the familiar "*ad hominem*" argument (which, in logic, is about the same as saying to one's opponent: "It does not make any difference *what* you have to say at all; because look who you *are!*") It seems that the Hoover Commission Task Force is headed by an official of the same accounting firm which audits the books of the National Association of Electric Companies (or so-called power company lobby). This guilt-by-association, or what else, was of itself supposed to be pretty severe condemnation and to render untrustworthy, in advance, anything the Hoover Commission group may yet report.

Interestingly enough, the NRECA resolution concedes that if REA had to borrow its money (for loans) from regular banks or other taxpaying financial sources, and if REA also had to cover its own operating expenses, such costs, for making REA loans, "would undoubtedly result in interest rates of 4.5 to 6 per cent per annum, an intolerable burden on the rural systems and a burden designed to bankrupt said systems."

The resolution concludes with a demand that Congress label the REA section of the Hoover task force report, unofficially, as "Operation Bankruptcy for Rural Electrification" and that the Congress not only reject it, but "also conduct an investigation into the sources of the ideas in this report and expose the authors to the public eye for what they are. . . ." The irony of all this is that the Hoover Commission Task Force report on Lending Agencies *has not yet been published*, and is still supposed to be a secret document!

There were three other resolutions adopted at the NRECA meeting at Atlantic City of passing interest to telephone companies:

(1) A request that Congress appropriate a minimum of 125 million dollars in new lending authority for rural telephones during the fiscal year 1956.

(2) A recommendation that REA (in view of the dropping off of applications for rural telephone loans) be urged to "encourage and assist formation of rural telephone cooperative associations."

(3) Congratulating Administrator Ancher Nelsen and staff "for their efforts in negotiating with Independent companies and the Bell System by obtaining and attempting to obtain fair and equitable connecting company and extended area service agreements and we urge the continuance of these efforts."

Highway Relocation Expense

It apparently cost telephone companies more than any other utility industry to take care of the expense of relocating facilities as a result of federal-aid highway construction. This was revealed in a general survey on the suggestion undertaken by all utilities at the request of the Federal Bureau of Public Roads.

Telephone companies in 1953 had approximately 8.2 million dollars of comparable costs. All public utilities—exclusive of railroads and other carriers—reported a total of more than 20 million dollars spent in 1953 for moving facilities because of federal-aid highway construction. All together it amounted to 4.1 per cent of the entire cost of such federal highway construction in that year.

In addition to what it cost telephone companies, other public utilities laid out the following amounts in 1953: Electric utilities, both publicly and privately-owned, 7.7 million dollars; gas utility companies, including pipelines, $2,861,957; and water and sewer utilities, mostly publicly-owned, 1.9 million dollars. These were all unreimbursed expenses, and do not include betterments of facilities or improvements in any way not connected or independent of relocation expense. In other words, this was an expense borne by utility users for the benefit of highway users.

While the cost of this utility relocation is a very modest percentage of the federal-aid highway construction, it represents a burden to the utility users too large to be passed on to them in the form of higher rates. Congress will be asked at this session to reimburse utilities in the future for their relocation costs occasioned by federal-aid highway projects. There is no thought of asking for reimbursement to cover additions or betterments.

With the growing interest in a great network of interstate super highways, utilities are faced with a hard economic fact, not an academic issue.

Original Cost vs. Purchase Price

One of the most interesting regulatory decisions to be handed down recently comes from the Wisconsin Supreme Court. It deals with the question of what to do, in fixing a public utility company's rate, about recognizing the difference between what a

public utility property actually costs to construct and what the public utility company actually paid for it.

This is not a new question. A couple of decades ago it was common practice for a public utility company to buy up the properties of another utility company at a premium—that is to say—paying more for such properties than they actually cost to construct, simply in order to get the advantages of combined operation and other economic benefits which sometimes accrue when neighboring utility properties are merged. Of course, it sometimes works the other way. A public utility company may be in a position to pay something *less* than the original construction cost. That is the situation which faces the Wisconsin Supreme Court—a case of a utility company buying out another utility's property at a bargain or discount price.

The Wisconsin court has decided that the acquisition cost (or purchase price) of utility property rather than the original cost when first devoted to public service (sometimes called "aboriginal cost") may properly be used by the Wisconsin commission as a basis for the annual depreciation charge. The case arose in fixing fares for the Milwaukee & Suburban Transport Corp., which at the end of 1952 bought out the Milwaukee transportation system for 10 million dollars, or almost 5 million dollars less than the depreciated original cost of the property. The commission, in determining the annual depreciation charge of 1.2 million dollars (on the basis of the original cost), ordered a deduction from that allowable expense by the amount ($327,047) which would amortize the difference between the original cost and the purchase price over the life of the property.

The transit company on appeal claimed it was entitled to an annual depreciation allowance based on original cost of the property when first devoted to public service, which would result (under fares then being charged) in a return allowance of only 2.91 per cent. This was said to be confiscatory and called for a fare increase. The commission's use of the actual purchase price paid by the company for the property, however, would lower the depreciation expense so that prevailing fares could yield a return estimated at 7.35 per cent.

The state supreme court, in an opinion written by Judge Currie, ruled that the commission was justified in limiting the depreciation allowance to a return of the actual investment cost of the plant to the transit company. The loss of the difference in depreciation of the original cost investment was held to have been sustained by the former owner through his voluntary act of selling at a price below depreciated original cost. The importance of this decision is the court's acknowledgement that the commission would have to follow a consistent rule in applying the same principle to the more common situation of a utility's property purchased (at arm's-length bargaining) at a price in excess of the original cost when first devoted to public service.

The court said: ". . . if the Wisconsin commission is to be consistent with its action in the instant case, it would have to permit deduction of amortization charges to permit recoupment of a premium paid over and above depreciated original cost to acquire plant assets of a former operating owner, if it determined the purchase price did not transcend the rule of 'prudent investment.' "

The court distinguished its ruling from somewhat contrary decisions by the Federal Power Commission (FPC) and Pennsylvania courts. On a procedural point, the Wisconsin court ruled that the actual allowance of a fare increase after the issue over original cost had been joined did not render a final decision on that point unnecessary ("moot").

REA Makes First Telephone Loan in Vermont

REA loans to extend and improve telephone service in the rural areas of Vermont, Kentucky and West Virginia were announced on Feb. 15 by the U. S. Department of Agriculture. The allocation of $146,000 to a Vermont company is the first REA telephone loan in that state. Details of the three loans, amounting to $534,000, follow:

Topsham Telephone Co., East Corinth, Vt., on Feb. 8 was allocated $146,000. The funds will be used to improve and extend rural telephone service in Orange County.

The Topsham company is presently furnishing magneto service to 257 subscribers over 92 miles of line and will use the REA loan to construct a practically new plant. About 107 miles of new line will be added and a new automatic central office constructed at East Corinth, replacing the magneto facilities.

These changes will make it possible for the borrower to furnish improved service to the existing subscribers and to serve 91 rural families in the community now without telephones. The system, when complete, will consist of 113 miles of line.

Eugene B. Andros is president of the Topsham Telephone Co.

* * *

On Feb. 11 Mason County Telephone Co., Maysville, Ky., was extended a loan of $35,000; third loan to this borrower.

The Mason county company will use the loan funds to complete the system authorized in the first two REA loans. The three REA loans, totaling $607,000, will make it possible for the borrower to furnish modern telephone service to 1,062 subscribers over 260 miles of line in Mason County.

Automatic central offices located at Lewisburg, Fernleaf, Dover, Hays Lick and Washington were all cut over in early November and about 900 subscribers are now receiving dial service in the operating area. Calls may be made without toll charge among the five exchange areas.

Ruth Kehoe is president of the Mason county company.

* * *

Hardy Telephone Co., Moorefield, W. Va., also on Feb. 11 was allocated $353,000 to provide rural telephone service in Hardy, Hampshire, Grant and Pendleton counties. With these loan funds, the borrower, a new cooperative with no present facilities, plans a modern automatic telephone system in the northeastern part of the state to serve rural areas which have never had telephone service.

An entirely new plant will be constructed consisting of 248 miles of line and a new automatic central office building at Lost River. These modern facilities will enable the cooperative to furnish telephone service for the first time to 663 rural residents in the operating area.

Vance Mathias is president of the Hardy Telephone Co.

XUM

TROUBLE CLEARING

Common Sense Battery Maintenance

By L. N. MARTIN

LARGE TELEPHONE COMPANIES have elaborate battery routines which cover every phase of the maintenance program in great detail and which always include numerous reports to be filled out by the battery man and forwarded through organization channels to the general office. We found that one company had eight different forms to be used for battery reports.

Such reports are necessary for the large company. If the power engineer is to be responsible for batteries hundreds of miles from his office, he must have detail reports at regular intervals. We are afraid, however, that this sometimes results in the man who actually maintains the battery following the rules to the letter and filling out the reports very conscientiously, but failing to learn the basic principles of battery maintenance. We believe that the man actually doing the work should first of all understand what he is doing and why.

Our concern in this article is more with the smaller, locally-owned, and locally-managed company. Such a company has no need for battery reports and no need for a complicated battery routine. However, they should have a very definite method of maintaining their battery and this should be in the form of a printed or typed instruction.

Many companies do not have such a written routine and some have no instruction whatever. We asked one telephone man how he took care of his battery and he replied: "I look at it about once a month to see if it needs water and if everything looks OK. I used to take a specific gravity reading now and then, but about a year ago the hydrometer got broken and I keep forgetting to order a new one." His answer is rather typical. He recognizes the need for some battery care but he has not organized this into a definite routine.

How should the small company set up a suitable battery routine? Someone has said: "Listen to everyone's advice, then do as you please." This might be changed for our purpose to: "Ascertain what the big companies, both Independent and Bell, are doing in the way of battery maintenance, secure the advice of the company that made your battery, read articles on this subject in the trade journals such as TELEPHONY, then make up your own rules to suit your particular case."

What happens to a battery that receives practically no care? We have a good example in the automobile battery. Before a voltage regulator became standard car equipment the maximum life of the battery was about one year. The motorist expected to buy a new battery during the first cold spell each winter. The addition of a voltage regulator, of the chattering relay type, to the electrical system of the car prolonged the life of the battery, in many cases, to two years, but we believe that the average is less than that. Mounting the battery under the hood where it can be inspected without unloading the passengers and taking up some of the floor boards also added to the life of the battery. But would a telephone company want to replace its battery every year or even every two years?

PART 42. The preceding article in this series appeared in the Dec. 4, 1954, issue, page 44.

There is, however, another side to this question. If a motorist studied battery maintenance and spent a half hour each week taking care of his battery, he could undoubtedly make it last many years. However that half hour may be worth $1.00 and that would mean more than $50 a year for battery maintenance. Now, a new battery does not cost too much. From a purely financial standpoint the car owner had better just run the battery until it fails, then get a new one. On the other hand if he is interested in preventing a breakdown on the road or a failure to start some cold morning, he may be willing to spend more on battery maintenance.

This also applies to the telephone battery. A very small and inexpensive battery such as that at a one-position PBX board may be (as the military say) "expendable," but the central office battery costing several hundred dollars or even several thousand dollars is certainly not expendable. The best maintenance routine that can be obtained is justifiable financially. Furthermore, the telephone company cannot tolerate a breakdown.

We will now make some suggestions on preparing a battery routine. All companies will not want to adopt all of the items. Repeating our own advice: "Read what we have to say; get all the information you can from other sources; then set up your *own* routine."

The most important test of a storage battery is the *Specific Gravity Reading* made with a hydrometer. We discussed this test at length in two of our previous articles (TELEPHONY, Mar. 27, 1954, p. 26, and Apr. 10, 1954, p. 24) making the point that a single specific gravity reading (or a few haphazard readings) is of no value whatever. It is only when a series of readings at regular intervals are made that a record is obtained that is of great value in determining the condition of the battery and preventing trouble. *This means that a record of the specific gravity readings must be kept.*

To avoid the time-consuming job of reading each cell at frequent intervals (a 48-volt battery in three strings would have from 66 to 75 cells), one cell in each battery is designated the "pilot cell." Any cell that is not in trouble may be used as the pilot cell and it is assumed that it is representative of all the cells. However, at longer intervals all cells are tested.

When a battery is on automatic float its specific gravity should remain the same day after day for many months, except that in the course of a year it may drop slightly due to aging. Therefore, if the specific gravity of the pilot

cells drops more than one point the battery has been discharged. This may be due to floating too low, to an unnoticed power interruption, or to an unusual load which was beyond the capacity of the power plant. In any case, the cause should be ascertained and corrected, and the battery should be charged.

How often should the pilot cell be read? Let us answer this question by asking several more questions. How long do we want the battery to stand in a partly discharged condition? Certainly not a whole month. A week? Well, that is better than a month. But why wait a week? It requires only a few minutes to read the pilot cell. Why not do it every day? Of course, we would not make a special trip to the office on Sunday to do this or even on Saturday if the office is not regularly covered on these days. Neither would we make a trip every day to a small unattended office or a small PBX just to read the battery.

How would this do for a common sense plan? *At the main office read the specific gravity of all pilot cells each day that the office is covered. Read the pilot cell at an unattended office on each visit made for any purpose.*

Where and how should these readings be recorded? No elaborate form is required. A small note book will do and it could be attached to the battery rack with a cord so that it will always be there when wanted. Divide the page into five columns headed: *Date; Specific Gravity; Temperature; Corrected Specific Gravity,* and *Remarks.* A glance up and down the pages of this book will detect any significant change in the specific gravity. When the cause of any change has been discovered and corrected it should be explained in the "Remarks" column.

The pilot cell readings may be satisfactory and yet one or more cells may be in trouble, therefore, at times all cells should be read. This is a longer and hence more expensive job, therefore, it should be done only as often as necessary.

Serious cell trouble usually results in some irregularity in the operation of the battery as a whole. Suppose we have a 22-cell battery floating at 2.17 volts per cell. The regulator will be set at 47.74 volts and the battery will normally receive a small trickle charge, probably not enough to show on the battery ammeter. Now suppose that a short develops in one cell and that cell has little or no voltage. The open circuit voltage of the battery will drop to about 45.7 and, since the regulator is set to hold the voltage at 47.74, the battery will charge continuously.

Now a wide awake battery man who reads his meters and looks over the battery every day should detect this. The charge should show on the battery ammeter (which normally stands at "0" on an automatic float). He may detect the odor of gas when he is near the battery and if the jars are glass he will see bubbles rising in the cells. He

STORAGE BATTERY REPORT SPECIFIC GRAVITY READINGS OF INDIVIDUAL CELLS

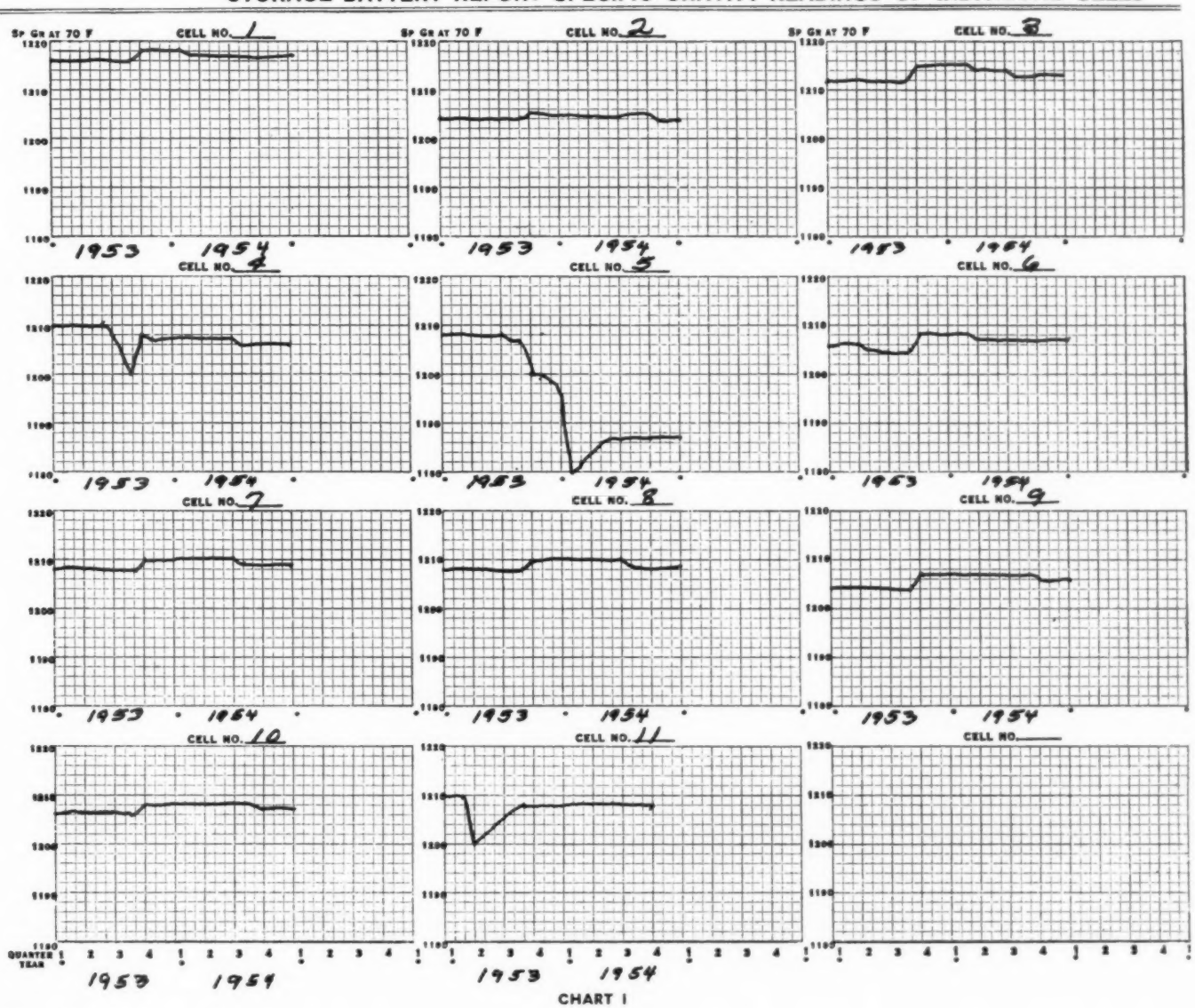

CHART I

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will then want to test all cells to locate the trouble.

So let the first rule be: *"When any irregularity occurs in the operation of the battery, read the specific gravity of all cells."*

Some cell troubles will not show up in the over-all operation of the battery, therefore, periodic readings of all cells are also necessary. Some companies schedule this quarterly, others monthly. For a common sense rule why not say? *"When the battery is new and no trouble has yet been encountered, make these readings quarterly. When the battery gets older or after a case of cell trouble has occurred, make these readings monthly.*

Is it necessary to record these individual cell readings and, if so, how should this be done?

The purpose is to detect any irregularity in the gravity of an individual cell and this can only be done by comparing successive readings of the same cell. *Therefore, the readings must be recorded.* When making a test of all cells it is natural to record all the readings made at any one time on one sheet of paper. This means that to study the behavior of any one cell we must look through a bundle of these sheets picking out that cell on each sheet. It is obvious, therefore, that the successive readings of each cell should appear together. A very good way to record this information is to construct a curve on graph paper for each cell. The reading of each cell is posted in the proper place by means of a pencil dot on the graph paper and then the curve is drawn from dot to dot.

Chart 1 is a sample of such a graphic record. Even a hasty glance at this chart shows that there is something irregular about cells 4, 5, and 11. The curves of all the other cells look very much alike but are on different levels. Cell 1 starts at 1216; 2 at 1204; 3 at 1212, etc. It is not necessary that all cells start out with the same specific gravity, but the differences should not be as great as we have shown here. Some companies permit a variation of five points, others only three points, in a new battery. However, if the differences become greater as the battery ages, it is not necessary to correct this condition.

The sample chart shows that in October, 1953, an equalizing charge was given the battery for the benefit of cells 4 and 5 which were in trouble. This charge caused an increase in the specific gravity of all the good cells. Also notice that during the two year period covered by the chart, all cells dropped one or two points due to aging.

Cell 4 shows a case of sulphation which started in July, 1953. The special equalizing charge in October brought it up to within two points of where it had stood before the trouble after which the cell did very well for the rest of the two-year period.

Cell 5 also became sulphated in July, 1953. The drop in this cell was temporarily stopped by the equalizing charge in October but started downward again in December. In February, 1954, the specific gravity of this cell was purposely lowered to 1180 to aid in softening the hard sulphate. The cell was then individually charged bringing it up to 1187 which now may be considered full charge for this cell. The cell then did very well for the rest of the period covered.

Cell 11 had a different kind of trouble. In March, 1953, the cell was accidentally flooded while adding water and some of the acid was lost. It slowly recovered as the surplus water evaporated, but remained two points

below where it was before the accident due to the loss of acid.

All of the above explanations should be made by the battery man in the form of notes on the back of the chart or on a separate sheet.

It is easy to see the trouble in cells 4, 5, and 11 after the curves have been completed but how soon would the battery man have been warned of this trouble? The curve of cell 4 shows a two point drop in July. As the cell would not drop that much because of aging, trouble should have been suspected. Two more points downward in August confirms this.

Cell 5 shows a one point drop in August and was level in September. This is not abnormal but the 7 point drop in October is a definite indication of trouble.

Our question as to how to record the individual cell readings has now been answered. *"Make a permanent record of the individual cell specific gravity readings in the form of curves on graph paper."* (The readings may first be recorded in figures on scratch paper.)

The routine which we have just outlined applies to batteries on automatic float. If a company still operates its battery by one of the charge-discharge methods quite a different routine is required. The specific gravity of the pilot cell will not remain constant but will go up with the charge and down with the discharge. The pilot cell must be read much more frequently than under the float method but all of these readings are not recorded.

On leaving the office for the day the battery man will want to read the pilot cell to be sure that the battery has enough reserve to carry the load overnight. To be sure of this he must know four facts: (1) *The full charge specific gravity of the pilot cell;* (2) *The "Specific Gravity Range" of the battery;* (3) *The "ampere-hour capacity" of the battery;* (4) *The usual night load of the office.*

In the morning, the pilot cell is read to determine the overnight discharge and to make an estimate of the time required for the day's charge. As the charge nears completion, frequent readings are made to determine the proper time to stop the charge. The final reading is made a few minutes after the charge is stopped.

How many of these readings are recorded and how are they recorded? Most companies use a form with one line for each day. There are columns for: *Date; Before Charge Specific Gravity; Time Charge Started; Charging Rate; Time Charge Stopped; Specific Gravity After Charge Is Stopped.* We believe that this is a valuable record and we recommend it for all companies who are still using a charge-discharge method.

Individual cell specific gravity readings are also made when the battery is maintained by a charge-discharge method. Here again the specific gravity of the individual cell is not constant, but goes up and down with the state of charge. Therefore, to have any meaning, the specific gravity curves must be posted at a time when the battery is known to be fully charged. The best time for this is just after the completion of an equalizing charge.

However the Equalizing Charge is a controversial subject. Its frequency has varied through the years from weekly to annually or not at all. We will discuss this more fully in a coming article in which we will bring out the reason for the equalizing charge.

Another important test of the storage battery is the Voltage Test. We will discuss this also in our next article.

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INSIDE WIRING CABLE

TELECABLE INSIDE WIRING CABLE has semi-rigid Plastite ® insulation and brown or ivory Plastite jacket. It is light in weight and water resistant. Excellent electrical characteristics. Unaffected by humidity, TELECABLE inside wiring cable is ideal for duct work. Its long life assures low maintenance cost.

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Famous WB long life drop wire has demonstrated to the Independent Telephone Industry that a BETTER wire is much more economical than a CHEAPER wire.

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The new standard original equipment cord of the Independent Telephone Industry.

The sturdy, long-lasting telephone cord that resists abrasion, perspiration, humidity, oil and grease. Specify TELECORD when you purchase telephones. On replacements use TELECORD for economy and service.

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The PREFERRED Cable of the Independent Telephone Industry

DEMAND is one measure of leadership. The preference of hundreds of independent telephone companies for TELECABLE has established the leadership of this great, new exchange area cable.

TELECABLE Exchange Area Cable for aerial and duct use has polyethylene insulation and polyethylene sheath . . . the thermoplastic sheath that provides the long life required of telephone cable. TELECABLE possesses excellent transmission qualities and extraordinary weathering properties, withstanding sunlight and extremes of atmospheric temperature. It is not subject to environmental cracking, it is light in weight, tough yet flexible.

TELECABLE Exchange Area Cable is REA approved under Specification PE-14.

TELECABLE is available for immediate delivery in No. 24, No. 22 and No. 19 A.W.G. in 11 to 202 pair.

Well Built Wires Since 1899

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WHITNEY BLAKE COMPANY

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The Real Value of the Telephone

The true worth of the telephone lies in the way it *saves*, as well as *serves*. All telephone people know how calls can save money for telephone users, as well as time and steps. And all telephone companies benefit when users are reminded of this saving.

The advertisement across the page, reaching millions of readers of February magazines, is such a reminder.

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Saves $35 Deposit
"My telephone call to a vacation resort to change reservation on apartment saved the $35 deposit I would have lost."
Saves Days of Anxiety
"A telephone call quickly gave me the condition of my nephew after a major operation. I would have been wondering for days."
Saves Pure-bred Cow
Telephone call brought veterinarian in a hurry. "Without it," says farmer's wife, "I would have lost a pure-bred cow."
Saves $10 on Children's Coats
"The telephone helped me save $10 by taking advantage of a sale. I couldn't have left the children to go downtown."

How much Time and Money does the Telephone save for YOU?

A little while ago we left a questionnaire with some housewives and asked them to record the many ways the telephone helps them save time and money. Just a few of hundreds of answers are printed above.

It's true that the telephone saves far more than it costs. But its day-by-day value goes beyond time and money. It serves in so many other ways . . . in friendship, happiness and peace of mind.

BELL TELEPHONE SYSTEM

Reminding you that someone, somewhere, would like to hear your voice today

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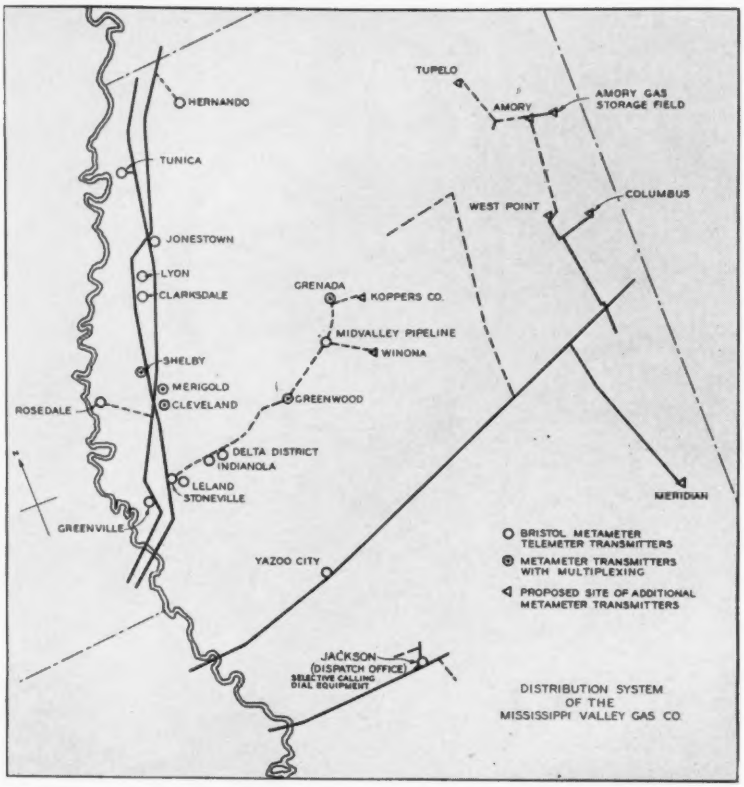

Fig. 1. System map of the Mississippi Valley Gas Co., which shows distribution system serving 104 communities in Mississippi with natural gas. Locations of the telemetering facilities mentioned in the article are indicated. All photos courtesy of The Bristol Co.

Selective Calling Telemetering

By C. S. STAPLETON*

AN IMPORTANT variation for obtaining information by telemetering has been developed and recently placed in service by Southern Bell Telephone & Telegraph Co. for the Mississippi Valley Gas Co. This variation is called "Selective Calling Telemetering."

The Selective Calling Telemetering system was developed to select any one of many various locations, possibly hundreds of miles apart and to prepare a single channel for reception of information transmitted from that remote location. The information obtained in this case is measurements of pressure, flow or temperature, but the system can be used to obtain just about any reading desired and is on a selective basis. The performance of control functions, such as starting and stopping pumps and motors or opening and closing valves can also be applied on the same selective basis.

With this system in operation the dispatcher can perform from his office almost anything that a human being on the spot can do.

In February 1953, the Mississippi Valley Gas Co. requested that Southern Bell provide wire facilities for a telemetering system covering the northwest section of the state of Mississippi. *See Fig. 1* for a map of the system, showing locations of transmitters.

The customer's original question was, "What is the cost for providing line facilities between Jackson, the dispatch office, and such towns as Hernando, Tunica, Clarksdale, Cleveland, Greenville, and Greenwood? The system is to be used for telemetering." Now telemetering was not new to the telephone company, but at no previous time had we been requested to provide such an extensive system. A two-point telemetering circuit with a transmitter and a receiver located from one to hundreds of miles apart is a relatively common request, but 50 such circuits created a definite problem.

From the beginning, both the customers and the telephone company realized the many problems involved. The customer's main problem was to work out a system by which the desired information could be received at the central location—dispatch office, without occupying an excessive amount of floor space for operation.

If a receiving instrument were necessary for reading each function and there are 50 functions, then 50 instruments roughly 20 inches by 20 inches would have to be mounted on the walls of the customer's dispatch office.

The customer was very fortunate in

(Please turn to page 30)

*Mr. Stapleton is with the sales supervision department of the Southern Bell Telephone & Telegraph Co.

Fig. 2. Telephone company "calling" selector, located in Jackson dispatching office of Valley Gas. Shown in the photo with the selector are GEORGE SHEFFIELD, plant supervisor division, and M. E. FORREST, plant supervisor, general office, Southern Bell Telephone & Telegraph Co.

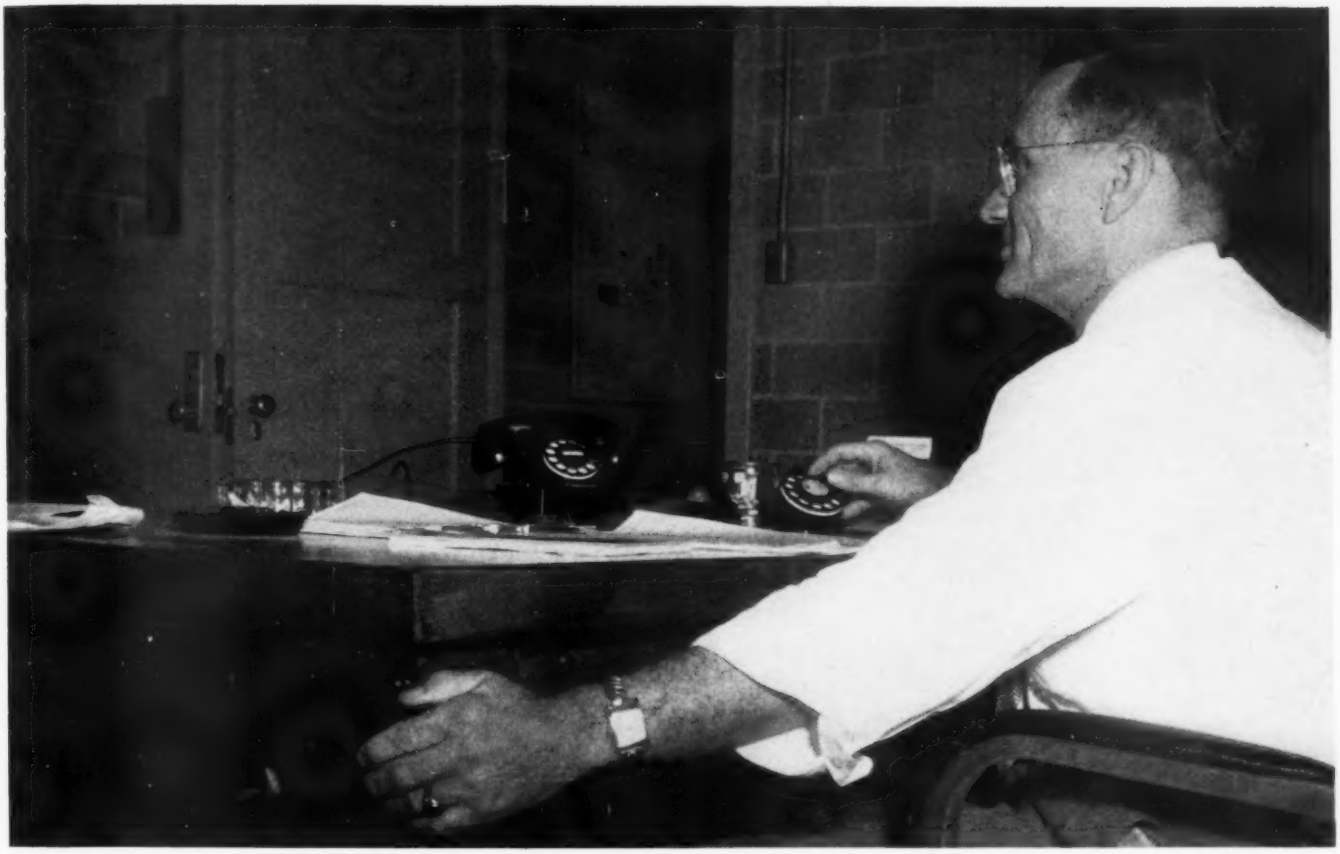

Fig. 3. Dispatchers desk, located directly in front of instrument panel board. Dispatcher is shown dialing a code assigned to one of the Metameter telephone transmitters, to receive measurements on one of the indicating receivers in front of him.

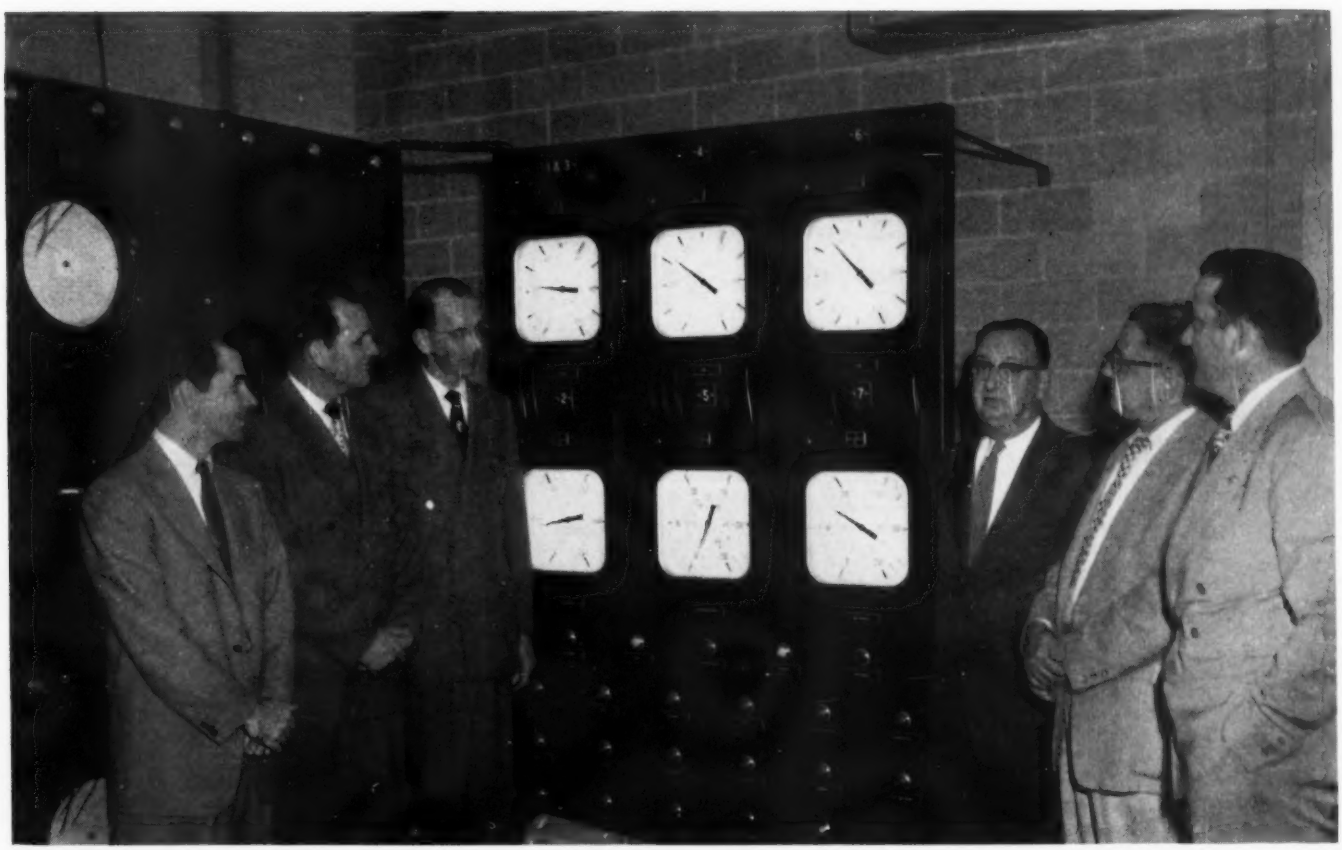

Fig. 4. Panel of indicating Metameter telemeter receivers in Jackson dispatching headquarters. Shown are C. S. STAPLETON, GEORGE SHEFFIELD and M. E. FORREST, all of Southern Bell Telephone & Telegraph Co.; G. C. JONES and H. E. JAMES, both of Mississippi Valley Gas Co.; and H. D. ARCENEAUX of the Southern Bell company.

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photos courtesy General Electric Co., Ft. Wayne, In.

Factory P-A-B-X's outstripping towns as revenue source

"2000 telephones . . . 65 trunks . . . 3500 incoming local calls daily . . . 7000 long distance calls a month": there's big P-A-B-X business in factories!

Many telephone men who are promoting P-A-B-X in factories are receiving an agreeable surprise: P-A-B-X's —even in medium-sized plants—often bring in more revenue than many a nearby town! Factory P-A-B-X's are undeniably *good business.*

Reports indicate, too, that it's easy to sell P-A-B-X service to factories. There's a good reason, of course: plant management can see P-A-B-X will pay its own way in immediate, substantial savings! P-A-B-X saves walking, makes instructions easy to get and give, minimizes switchboard delays, and gets more done in every man-hour. With P-A-B-X systems of all sizes, "inside" calls are made quickly, easily, by dialing. And service on incoming and outgoing calls is improved greatly. On small systems, incoming calls can be "picked up" at any non-restricted telephone and transferred, if required; no attendant needed. On larger systems, incoming calls are distributed by an attendant; outgoing calls may be dialed direct or handled by the attendant.

Our salesmen are glad to work right with you as you call on prospects, if you wish. And you'll find our informative catalog a great help—its "handy guide" helps you choose the right P-A-B-X for each prospect. Send for Catalog T-4060. *Address: Automatic Electric Sales Corporation, 1033 W. Van Buren St., Chicago 7.*

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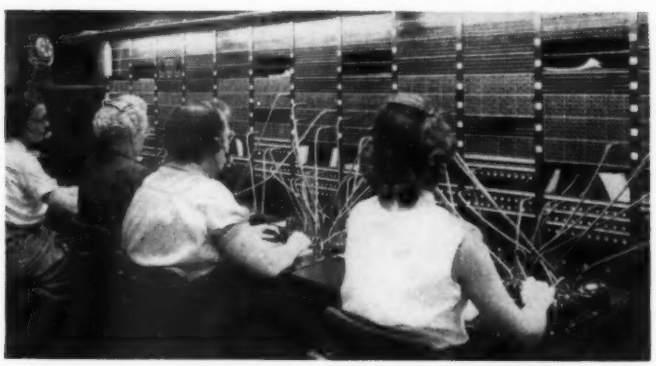
Automatic Electric P-A-B-X serves 2000 telephones...

puts executives in instant touch...

with key men...

throughout the plant.



Modern 4-position attendant cabinet handles 3500 incoming calls daily over 65 trunks. Speeds completion of 7000 long distance calls a month

AUTOMATIC ELECTRIC

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having the engineering services of The Bristol Co. of Waterbury, Conn., from whom he was buying his telemetering equipment. In the process of dealing with this instrument manufacturer it was discovered that its engineering department had worked with some similar requests, and therefore, was familiar with the customer's problems.

The telephone company's problem was that we did not have 50 channel facilities available between Jackson and the various locations. The problem was taken to the general engineering department in Atlanta and from there to the Bell Laboratories. Our problem was solved by the design of a relay type selector to be used in combination with telegraph type line facilities. The result of this design was that relatively few interexchange facilities were required. The receiving selectors are located in our offices with the calling selector located at the customer's dispatch office.

The selectors are designed to operate on teletypewriter interexchange facilities. The "Calling" selector *(Fig. 2)* is located in the Mississippi Valley Co.'s dispatch office in Jackson. The "Calling" selector is mounted in a 7-foot high floor mounted relay rack, 23 inches wide and located in back of the instrument board. The dispatcher's desk *(Fig. 3)* has a dial, dial lamp, meter lamp, and three position (off, dial, meter) key. The telemetering instruments, receiving and indicating equipment are mounted in an upright board *(Fig. 4)*, approximately 5 feet wide and 9 feet high, with Metameter indicating receivers in the upper section and lamps located in the lower section. The remote telemetering transmitters are mounted in cabinets *(Fig. 5)* at the individual field locations.

The following procedure indicates the simplicity of operation of this system:

The dispatcher operates the key from "off" to dial position, dials the appropriate number (two digits), then operates the key to "meter" position. The lights on the board indicate the name of the town, the function being measured, (pressure, flow or temperature) and a light mounted on the particular meter case lights to indicate the meter on which the reading will appear. The dispatcher records the information and operates the key to "off" position which releases all the equipment preparing it for the next number to be dialed.

At two points in the system, the customer also wished to be able to dial a number and thereafter receive all the readings necessary from one town without further dialing. This was accomplished by the use of a time-multiplexing arrangement at the transmitting end of the circuit and also at the receiving end. Initially, seven functions were provided: the Bristol Multiplexer used has an upper limit of 15 functions available. This accounts for the number of meters appearing in the Selective Calling Board.

Fig. 5. Metameter transmitters field mounted at the various outlying locations. These are the instruments which measure the various functions desired and transmit the measurements back to Jackson when "called."

The Multiplex transmitter in the particular remote location obtains the functions applied in sequence and when the dispatcher dials the number assigned, the information is transmitted sequentially to the dispatcher. In the dispatcher's office, the Multiplex receiver directs the information to the proper meters on the board, also in sequence, and the dispatcher records each reading as it appears.

At the present time only informational functions are used, but the system as designed will allow control functions to be performed, and they will be added later.

The completion of this project enlarges the scope and plays a vital part in the efficiency of the operations of the Mississippi Valley Gas Co.

The customer has indicated that the system has already proven itself to be very effective. This occurred during a cold snap in December, 1953. The gas consumption on his pipe distribution system was controlled to such an extent that he was able to meet the public demand without exceeding his contract.

In the customer's contract with the transmission company, a great penalty is applied at any time the Mississippi Valley Gas Co.'s demand exceeds the contracted amount of gas. Mississippi Valley's contract with the large manufacturing plants allows it to discontinue serving the plants when the public demand approaches the gas company's contracted amount of gas. This situation demands that the Mississippi Valley Gas Co. observe closely its consumption in coordination with the general public requirements. The situation is critical during an estimated 15 "bad weather" days in Mississippi. In the spring, summer, and fall seasons the critical point is not approached, but as one can readily see, it is to the customer's advantage to sell all the gas he can up to the contracted amount.

The basic idea behind this particular Selective Calling Telemetering System is very good because the information that is necessary to supervise the total consumption of the gas distribution system is figuratively and actually at the dispatcher's fingertips at all times.

The accomplishment of this project is a direct result of a high degree of coordination not only between the customer, his instrument supplier and the telephone company, but also between all the departments involved in the telephone company's portion of the work.

The performance and value of the Selective Calling Telemetering System can best be expressed in the customer's own words, "The only complaint we have is that we can find nothing to complain about."

V V

Telephone Bond & Share and Continental Company Merge

Effective Feb. 11, Continental Telephone Co., a wholly-owned subsidiary, was merged with Telephone Bond & Share Co. and as provided in the merger, Telephone Bond & Share Co. assumed the name of Continental Telephone Co.

It is deemed by the board of directors of Telephone Bond & Share that the name Continental Telephone Co. is more representative and more closely parallels the activities of the company through its ownership of 19 Independent telephone companies operating in 17 states.

V V

>> Bell System television facilities have grown from two circuits between New York and Philadelphia at the end of World War II to a network connecting over 350 television stations in more than 230 cities.

THE PLANT MAN'S Notebook

by Ray Blain, Technical Editor

IT APPEARS that automatic ticketing and dial switching equipment, in the not-far-distant future, may prove highly desirable for use in many of our larger hotels. At the present time, these hotels utilize manual PBX systems and employ a large number of operators. The employment of 50 or more operators is not uncommon in many of the larger hotels. The services of these operators are required primarily to dial local numbers for hotel guests.

In most modern hotels, at the present time, when a guest wishes to place a toll call, the hotel operator connects him directly to the toll operator of the telephone company. When the call is completed, it is charged to the room number and the record forwarded to the hotel for billing purposes. Because of frequent check-outs, these records must be transferred quickly and in some cases teletypewriters are used for this purpose.

In some cities, extended area calls are handled on an average charge basis. One city, we understand, charges 30 cents for all calls over one unit and this averages out very well over a normal billing period.

It must be admitted, however, that the present system of handling the charges on telephone calls made by guests in our large hotels cannot be considered entirely satisfactory. Frequently, this writer has been charged for calls he has never made. These will be taken off the bill by the hotel if you raise an argument, but it indicates a weakness in the present billing system.

One clerk informed us that these calls were probably made by the former occupant of our room and that billing information has not reached the accountant's office before check-out time.

It seems that it wouldn't be too difficult to devise an automatic ticketing system so that hotel guests could dial their own numbers direct. Automatic billing could be so arranged that complete charges could be made instantly available for any room in order that there would be no delay in billing on check-outs.

The rental charges for the special equipment, it appears, would be justified by a reduction in operating costs and accurate charges to guests. We will wager that this problem will eventually be solved to the general satisfaction of all—communicators and public alike.

• • •

A new development, recently placed on the market, combines a dial type intercommunication system with a centralized recording and transcription system. In fact, this new system has brought into being "secretaries" who never leave their desks and are ready to work at any time, day or night. Telephones for dictation and general intercommunication dial switching have been in use for some time, but this new system combines for the first time a general intercommunication dial switching system with plant-wide dictation facilities. Use of the combined system is limited only by the capacity of the telephone inter-communications system used.

The system is completely automatic and here's how it operates. A salesman has an important letter to write for his company. Instead of calling for a secretary to come in, take a letter, then go back to her desk and transcribe it for typing from her shorthand notes, he simply picks up the intercommunication dial telephone on his desk and dials a special number. He is automatically connected with a recorder in a centralized transcription room. A special tone signal informs him that the machine is awaiting his dictation. If a machine is not available at the time he dials, a busy tone signal will be heard.

In order to start dictating, the salesman presses a button in the handle of the handset. If the set does not happen to be equipped with a push-button, the start-stop of the recorder is accomplished by successive dialing of the digit "1." If he wants to play back what he has said, he dials a single number and the playback is heard. Another single number is dialed to indicate corrections, length or end of letter to an attendant stationed at the centralized group of recorders. If he wishes to talk with an attendant in the recording room, he dials another single number.

When the disc in a machine approaches the end of its recording capacity, the dictator hears a warning tone and, at the same time, a lamp signal and buzzer at the recorder indicate this condition to the attendant. A fresh disc is then inserted in the machine for continued dictation.

The complete correspondence is removed from the machine by an attendant and passed to one of a centralized group of stenographers for transcription and then the completed letter is soon returned to the salesman for his signature.

Under this new arrangement, the number you dial for dictation is only one number of hundreds available for personal use. It permits every employe in a responsible position to use the telephone at his elbow to dictate letters or to call other people in departments around the office or plant.

Flexibility of the dial switching equipment provided is one of the best features of the system. Equipments are available to handle requirements ranging from as few as 10 stations to as many as 1,000 or more stations as combined intercom and dictation telephones.

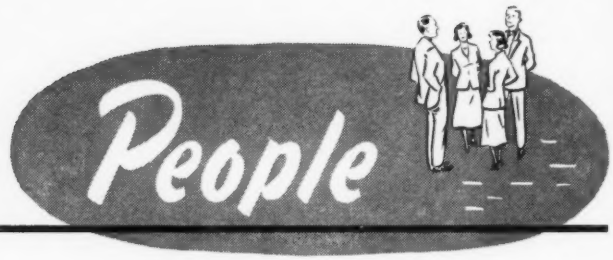
This is another use for the telephone that, in our opinion, has a possibility for extensive future application.

• • •

It has been said that the three-party system in the United States is: Republican, Democrat, and Cocktail.

XUM

Working With People



By GILBERT R. BRACKETT

PART VI

THE SUPERVISOR must first of all sell his own job to himself and sincerely believe in his company's policies toward handling people in order to earn a friendly relationship of confidence and respect that is so necessary to help the employe help himself.

You will derive great personal satisfaction from good human relations. Your work will be easier and more pleasant and the resulting job improvement will be a monument to your endeavors.

Your good-will must be "on the level" as most people can detect a fake a mile off. When your people realize you are a square-shooter and sincere in your desire to help them, the rest will come easy.

Bad manners sometimes start an "irritation cycle." An unjust word in the morning may cause the recipient to growl at the next person who crosses his path and in chain-letter fashion it will go on and on. Conversely, a pleasant word will spread as much sunshine as the rude word spreads gloom. A slight change in one's point of view may radiate happiness throughout the entire organization.

"Thank you," "Please" and "I'm sorry" can be overworked until you leave with the listener an impression of formality rather than a friendly, personal conversation. Such expressions have their place and are very much worthwhile, but they should be used carefully.

One of the most common dislikes among any group of people is that of being "bossed." We all realize the need for guidance and direction; in fact, we expect and ask for it from the people who are our leaders.

In an army, a soldier learns to take orders because he realizes delays may mean lives and battles lost. In civilian life, we sometimes fall into the habit of giving orders in an effort to save time, instead of making requests.

The person who wants to rule every situation is generally disliked. Also disliked is the one who speaks sharply. One outstanding trait of the "bossy" person is the "know-it-all" attitude. He acts as though he could do no wrong, make no mistakes. Sometimes his attitude is "superior" and he has little consideration for another's feelings.

Let's look the situation over. Here are three examples that smack of being "bossy." You could probably name many more:

(1) Failure to be courteous.
(2) An arrogant manner displayed in tone of voice and actions.
(3) Being abrupt and impatient.

Remember, we are all employes—a title does not make us superior to others. We are partners on the job. We should work as a team and pull together.

We should be alert to get the opinions of others and should seek their advice when in doubt. Too, we should listen to the ideas and suggestions offered by the people we work with.

Let's resolve that we will always try to get our people to do what we want them to do by the request method—by giving reasons and remembering courteous little words and phrases when we do request.

Telephone people are good object lessons for most businesses. They are trained to be composed under fire. They are past masters of the answer that "turneth away wrath." Let's keep them that way. Naturalism in actions and expressions is dictated by the heart rather than the mind. You can be natural only if you are sincere in your desire to help your people. Cheerfulness is contagious. Your manner and actions can spread cheer that will reach and encourage every person you meet.

Ideas are given to our people largely through means of speech. Our tone of voice will convey our sincere desire to be helpful and show our interest in our people. As supervisors, we should be able to speak correctly and use the right word in the right place.

Correct speech could be defined as:

(1) A good vocabulary and knowledge of the meaning of the words in common use.
(2) The ability to choose correct words at once.
(3) Skill in phrasing our thoughts briefly and simply.
(4) Correct pronunciation of words.
(5) Good enunciation.
(6) Pleasing tone of voice.

Words are the vehicles that carry our ideas, suggestions, etc., to others and also the means by which we obtain most of our knowledge.

We should be able to express our ideas so that they are easily understood. When we use the right word in the right place our work is made easier and more effective.

Regardless of how little education we have had, the ability to speak good English can be gained with little effort. An easy way is to listen to those who have good diction and then practice until we are sure our speech is free from defects.

Each person's voice is individual and should remain so. If our voice is expressive, pleasant and easy to understand, we should never try to change it in tone or expression because it differs from some other voice.

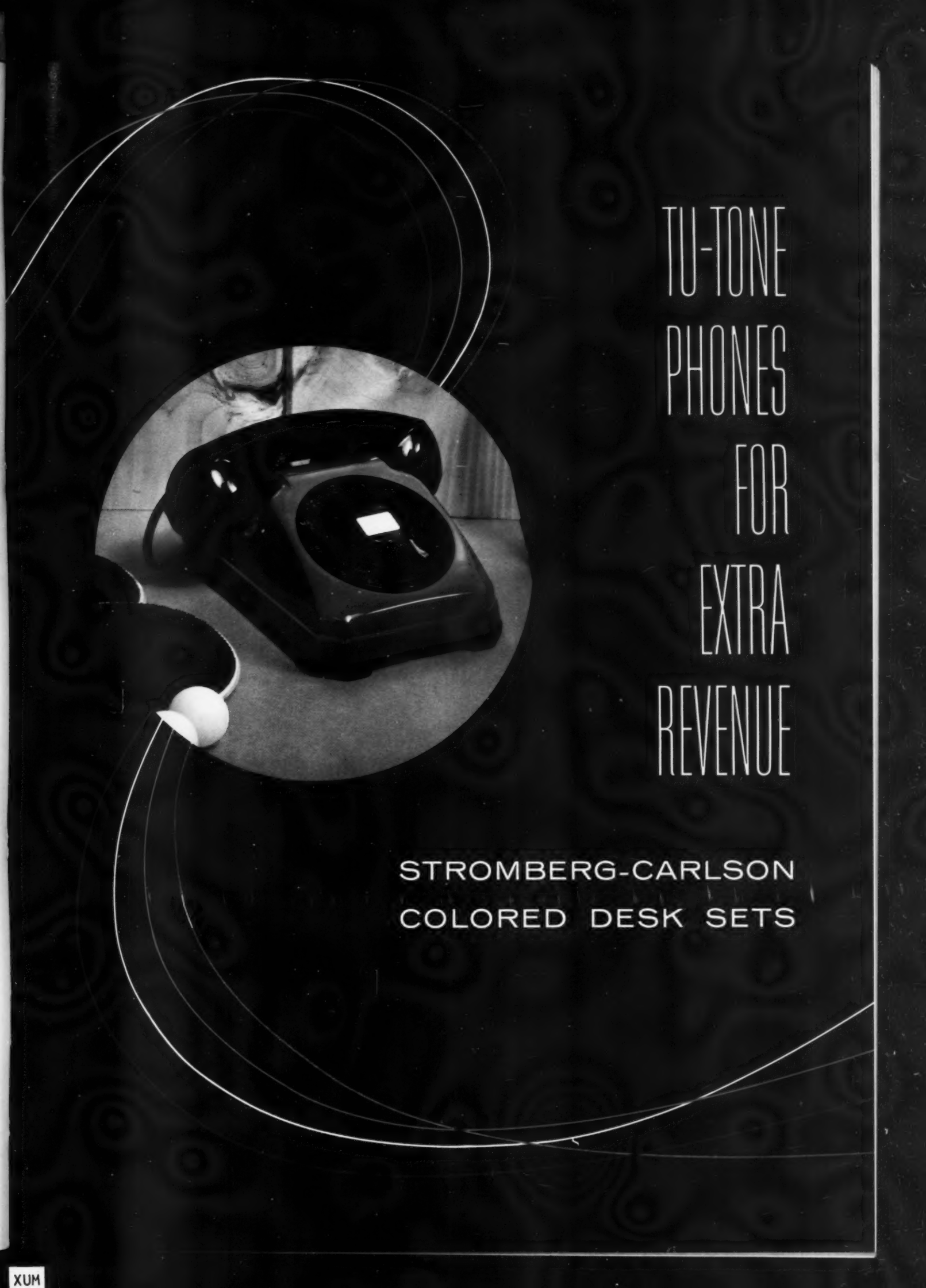
The ability to speak correctly is an asset. It helps us socially and on the job. It helps us meet people and make a favorable impression on them. It's a great help in putting an idea across.

We should avoid using slang. Even though we may like to use it because it is expressive and sounds "colorful," slang can cause unfavorable reaction from some people—they plainly don't like it. Certain expressions cause misunderstandings. Some phrases are crude and we should avoid them.

Do not use sarcasm or ridicule in words or tone of voice. Nothing is to be gained by hurting another. Use a quiet voice and speak calmly. Then you won't disturb others . . . besides a quiet, soothing voice is a sedative to the emotions.

If we talk too loudly, our people might get the idea we are abrupt or

(Please turn to page 41)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FOR
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Antique Ivory *For "1400" or "1500" Series telephones, order No. 212586*

Olive Green *For "1400" or "1500" Series telephones, order No. 212587*

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Now you can quickly convert Stromberg-Carlson "1400" and "1500" Series desk set telephones to meet the growing subscriber demand for *color*—and reap the benefit of extra revenue for the service. And, since our desk sets are easily convertible to wall mounting, you can even offer TU-TONE wall instruments to subscribers who might want them.

You buy *housings* only, and with them you can create TU-TONE color instruments in four different combinations. Loosening one screw is all that's necessary to remove the black housing and slip on a modern colored one.

Contact your nearest Stromberg-Carlson representative at once. Ask to see these new and exciting products which promise an enthusiastic and profitable acceptance.

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for your business subscribers* the G-1543 all-gray desk set

Gray is today's standard for smart office furniture and modern office machines. Here's the telephone that harmonizes with both perfectly.

Business executives, with rare exceptions, like to surround themselves with furnishings that speak "importance." This is a natural—and the nicest part is its contribution to your increased revenue.

Designed in the same color series as the TU-TONE colored instruments, this all-gray instrument has matching handset, Koiled Kord, feet and dial. The finger wheel is finished in a soft, brushed chrome. Demand will be heavy, so order now to insure prompt delivery. Please specify type of ringer.

**Many residential subscribers also will welcome this all-gray telephone to harmonize with modern, colorful home furnishings.*

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Bell System Has Gain of 1,967,000 Telephones in 1954

NINETEEN FIFTY-FOUR was a time of constructive change in the Bell System as, more than in any other postwar year, it had new facilities to meet promptly the personal wants and preferences of telephone users, Cleo F. Craig, president of the American Telephone & Telegraph Co., said in the company's annual report released on Feb. 21.

To accomplish this Bell companies spent 1.4 billion dollars for new and improved facilities. Mr. Craig added:

"Ever since World War II we have been working to get ahead of the enormous demand for telephone service. Year after year we have built new lines and buildings and switchboards, and added new millions of telephones. Each year, also, investors have provided hundreds of millions of new capital for telephone expansion—7 billion dollars since 1945.

"Nevertheless new demands for service have continuously crowded our facilities. It is true we have steadily cut down backlogs—greatly extended dial service—made the telephone more reliable and trouble-free. But many times, to our regret, we have had to ask people to wait; and frequently we have had to offer customers a little less service, or perhaps a little different service, than they might personally choose.

"By 1954, however, in most places this situation had markedly changed.

"With new facilities increasingly available, we could promote the advantages of *complete* telephone service for home and business.

"We could promote and sell the speed, convenience and economy of long distance service, and show businessmen how to profit by its use.

"We could market new services and refinements of existing service, and find new ways to make all the telephone's uses more satisfactory from the customer's point of view," Mr. Craig stated.

The total gain of 1,967,000 telephones in the Bell System in 1954 was 67,000 more than in 1953. Effective sales work helped to add 463,000 extension telephones in homes—60 per cent more than in the previous year.

The Bell companies met 90 per cent of all requests for telephones without delay. They reduced unfilled orders by more than half, to 181,000. A million more Bell telephones were changed to dial service in 1954. Eighty-four per cent of all Bell telephones are now dial-operated.

Long distance as well as local service made its best gains in the latter months. Early in 1954 the volume of long distance calls showed no increase over 1953. By the end of the year, however, conversations were up 10 per cent, and for the year as a whole they increased about 5 per cent, Mr. Craig said.

The average time for completing long distance calls dropped to 1.4 minutes and 97 out of every 100 went through while the calling party stayed on the line.

In 1954, towns and cities connected to the long distance dial network increased from 2,450 to 3,350; operators now dial straight through to the called telephone more than half of the long distance calls they handle. In 25 places, compared with three at the start of 1954, telephone users can dial directly to 14 metropolitan areas in different parts of the country.

Service in rural areas continues to increase. One of every seven Bell telephones added last year serves a rural area customer. More than 2½ million Bell telephones have been added in rural areas since World War II—295,000 of them in 1954.

The Bell System television network grew to reach 357 stations in 233 cities—an increase of nearly 100 stations and 70 cities since the beginning of the year. To accomplish this the system added 20,000 miles of television channels, bringing the total to 69,000 miles. It has equipped its network routes to carry color programs to 129 cities having 232 stations: when 1955 began 149 of these stations in 109 cities were using this service and it is available to all when they desire it.

Overseas telephone messages reached a new high of 1,064,000 in 1954. At the same time work went forward on the new transatlantic submarine cable system first announced in December, 1953. This will be able to carry 36 conversations at a time, and will be immune to atmospheric disturbances which sometimes affect radio-telephone circuits over the Atlantic. The cables and voice amplifiers are now being manufactured and cable-laying operations will begin this summer. The goal is to open service over the new system before the end of 1956, Mr. Craig reported.

Bell System earnings on total capital in 1954 were at the rate of 6.2 per cent, compared with 6.1 per cent in 1953. Net income of the system applicable to AT&T stock was $11.92 per share on 46,147,747 average shares outstanding, compared with $11.71 on 40,857,190 average shares in 1953. Net income of the AT&T by itself (which includes the earnings of subsidiaries only to the extent that they have been received by the company as dividends) was $10.41 per share in 1954 compared with $10.32 per share in 1953.

Bell System operating revenues increased 8.3 per cent to approximately 4.8 billion dollars. Operating expenses increased 6.6 per cent to 3.3 billion dollars. Operating taxes totaled 885 million dollars, or an average of $1.75 a month per Bell telephone. This was an increase of 87 million dollars, or 10 cents a month per telephone, over 1953.

However, federal excise taxes paid directly by telephone users were reduced by Congress April 1, 1954. As a result they declined from 670 million dollars in 1953 to 470 million dollars in 1954, or from $1.38 a month per Bell telephone to 93 cents.

Total taxes on telephone service were accordingly $1,355,000,000, or on the average about $2.70 per Bell telephone per month, compared with $1,469,000,000, or more than $3.00 per telephone per month, in 1953.

Earnings in 1954 were supported by telephone rate increases during the year to a lesser extent than for several years past. In general the rate increases authorized were below the amounts which the companies involved deemed necessary, and in a number of states commissions still lag notably in granting adequate rates, Mr. Craig said. He reported that telephone rates increased an average of about 30 cents a month on 16 million telephones in 19 states. Applications for rate increases are now pending in seven states.

"It is true that for the most part the level of rates has measurably improved compared with a few years ago, and true likewise that the general level of prices has not changed substantially in the last year or so. However, these facts do not signify that there is no further need for rate increases. With construction costs continuing at the high level reached in the last year or so, the average investment per telephone is still rising.

"To help build the new facilities required to expand and improve the service, we obtained large additional sums from investors. Total Bell System

XUM

construction and maintenance DIGEST

- **Keep batteries young**
- **Die-hard battery**
- **Ambidextrous terminal**
- **Reduce upkeep costs**
- **In the (sq.) groove**

Published every week to help you get the most out of your materials and supplies dollar

The few dollars you spend on *reliable* equipment today will be repaid a hundredfold in lower maintenance costs for years to come. Protect your investment with the double guarantee offered by Stromberg-Carlson. First, leading manufacturers build this equipment, and guarantee it. Second, because we recommend and sell this equipment to the telephone industry, we *also* guarantee its performance!

How to stretch out the useful life of your batteries

Keep your batteries charged at just the right level, and they'll give you added years of service.

You can maintain the right charge automatically, with the new Raytheon "high-rate" RectiChargeRs*.

This constant potential battery charger, like all Raytheon RectiChargeRs, operate 100% automatically. It has special dry disc rectifiers plus an exclusive Raytheon Magnetic Amplifier Control Circuit which maintains precise DC voltage output at any load in the presence of wide changes in AC input voltage . . . increases battery life by eliminating over- and under-charging.

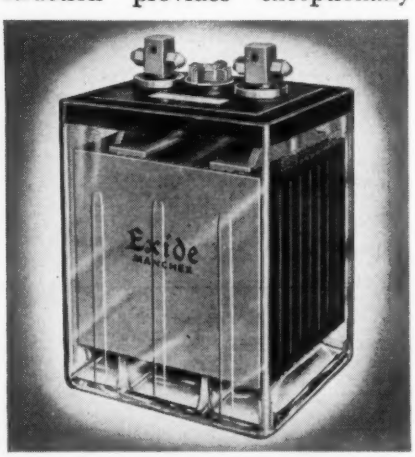
It handles inexpensively all normal power requirements and allows the battery to "stand by" fully charged to meet all emergency demands. You get noiseless current at constant voltage by simple connections to a power outlet and your battery. It is ideally suited for use with systems requiring power for 22/24 cells of battery.

*Reg. U.S. Pat. Off.

Protect yourself from battery failures

You can use Exide Manchex Batteries for central office and private branch exchange equipment, and be sure you'll get a supply of power when you need it. These batteries have been proven daily in exchanges of every size, and for 67 years Exide Batteries have been serving the telephone industry.

The manchester positive plate with its exclusive button-type construction provides exceptionally



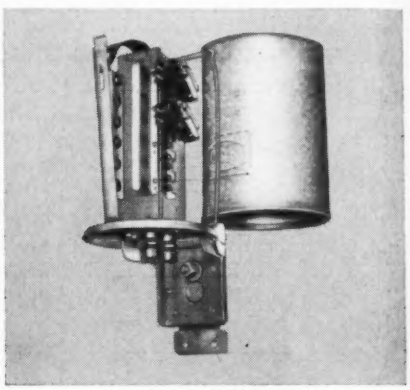
Old age, even high discharge rates, have little effect on this battery.

long life. Latest developments on molded glass jars permit compact space-saving installation.

Heavy terminal posts with copper inserts provide extra conductivity for sustained voltage at high discharge rates. Microporous rubber along with slotted plastic separators, are impervious to chemical and electrical reactions. Plastic spacers assure plate alignment.

Versatile terminal for plastic cable installations

If you're installing plastic cable, you'll want the S-20V pole cable terminal, with its two cable entrances, each of which is arranged to accommodate compression couplings ranging from 6 pair to 51 pair in size.

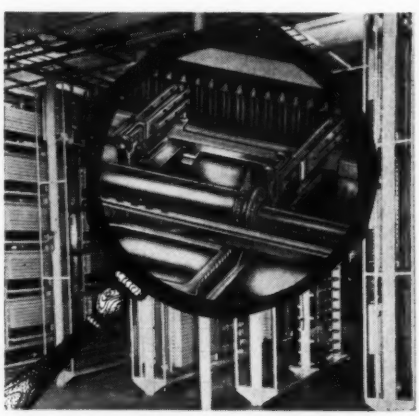


Easy accessibility of this pole cable terminal interior makes it ideal for use with plastic cable.

When only one cable entrance is required, you close the dead entrance with a standard pipe plug. These features, combined with the flexibility of Cook Electric Company's H-20 protector units, make the S-20V protected pole cable terminal probably the most versatile pole cable terminal available.

Housekeeping at a minimum

Some day you'll cut over to dial service. When you do, you'll give



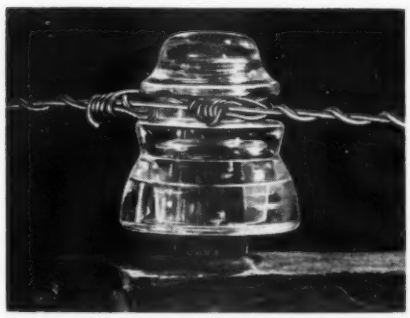
even greater consideration to maintenance—and maintenance revolves primarily around the factors of **wear** and **dirt.**

The XY® Dial System will reduce this problem to the absolute minimum. The twin-contact brushes, because of their wiping action, will last the life of the switch. And because the wire-bank multiples are vertical, dirt and foreign matter fall right through, instead of settling on the wires.

Big or small, the exchange with XY dial equipment is the most profitable because of its modest first cost and its low operating maintenance.

Use this insulator for rugged line construction

Hemingray Number 45 insulators with their square groove provide the ideal slot for your wire. Their reinforced construction under the groove reduces the possibility of breakage of the flange under the most severe ice loading conditions.



Double petticoat, square groove No. 45 insulator.

The extra long leakage path and double petticoat will reduce line losses and insure the strongest signal possible. These insulators are highly recommended for use on dial circuits where the strongest possible signal is necessary.

Another important advantage is the weather resistance of Hemingray insulators. Sudden or seasonal changes won't hurt them. The clear, flawless glass won't age or deteriorate.

Hemingray insulators, the "World standard since 1870," are made by Kimble Glass Company, subsidiary of Owens-Illinois.

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capital rose from $10,722,008,000 to $11,560,560,000. This increase resulted chiefly from the sale of bonds and from conversions of convertible debentures into AT&T stock," Mr. Craig said.

During the year the company sold 250 million dollars of bonds and six subsidiaries sold 255 million dollars of bonds. Three of those subsidiaries called 115 million dollars of bonds for redemption.

The company issued 5,879,348 shares of stock in 1954, most of them in exchange for convertible debentures. At the beginning of the year some 740 million dollars of convertible debentures were outstanding. Holders converted 581 million dollars of these into stock with accompanying cash payments totaling 213 million dollars. The company called for redemption two issues of convertible debentures, the 3⅜'s of 1963 and the 3½'s of 1964. The 2¾ per cent convertible debentures of 1961 have also been called for redemption on March 1, 1955.

Bell System employes made installment payments of 78 million dollars toward purchase of shares under the employes' stock plan. Payments on these shares are being completed this month and thus approximately 1,550,000 shares will have been issued out of the 3 million authorized by the share owners in 1950. At the end of 1954, the company made a further offering of stock to employes and some 300,000 have elected to purchase the 1,450,000 shares remaining under the plan.

The proportion of debt in the Bell system's total capital was reduced during the year from 41 per cent to 37 per cent.

In the nine years since the war, the Bell System has obtained 7 billion dollars of new capital from investors to carry forward its construction program. Nearly 4 billion dollars of this total is share owners' capital, of which 3.4 billion dollars has flowed to the business through the sale of convertible debentures and their subsequent conversion into stock.

Approximately 5,879,000 new shares of AT&T stock were issued and 48,162,000 shares were outstanding at the end of 1954.

In 1954 145,000 new share owners were added. The net increase in share owners was 42,000 and the total number at year-end was 1,307,000.

Since 1945, the number of AT&T share owners has nearly doubled. The average holding of individuals has increased from 24 to 30 shares. More than 60 per cent of the 400,000 owners who have been with the company all through these years have increased their investment during the period. More than half of the entire group of 1,307,000 have added to their shares since their first purchase, Mr. Craig stated.

More than two-thirds of the shareholders own 25 shares or less. Half own fewer than 15 shares. No individual owns as much as one-fiftieth of 1 per cent of the stock. On the average more than one in every 45 families throughout the nation has a direct ownership in AT&T.

Western Electric last year produced increased quantities of equipment particularly adapted to long distance dialing. It also turned out the largest quantity of telephone cable in history. Sales totaled $1,526,231,000, an increase of $18,278,000 over 1953. Sales to the Bell telephone companies were $1,019,279,000 compared with $1,012,826,000 in 1953. Western Electric earnings for the year were $55,837,000, or 3.7 per cent of sales.

Western Electric sales to defense agencies of the government totaled $452,200,000 and were the largest in any peacetime year.

At present, the Bell system has approximately 686,000 employes. Three out of five are women. More than 115,000 have served 25 years or more in the business. Some 62,000 have served more than 30 years. Approximately 440,000 employes have served less than 10 years, and 270,000 less than five.

The Bell companies also maintain pension and benefit plans. For service pensions they accrue on an actuarial basis trust funds devoted entirely and irrevocably to pension payments. Last year the companies as a group expended $284 million dollars or 9.7 per cent of the payrolls to provide for pensions and to pay disability and death benefits. This amount includes the companies' share of federal social security taxes for old-age benefits. At the end of the year 19,190 men and 16,412 women were receiving service pensions.

BABSON REPRINTS

TELEPHONY has received several inquiries concerning reprints of the article "Babson Urges Telephone Investment; Praises Independent Companies," which appeared in the January 29 issue, page 34. We have had some reprints made for use by the smaller Independents which might want to circularize the public in connection with local sales of stock. These reprints are now available at one cent apiece.

XUM

Young Saudi Arabian Trains at Tennessee Independent Company

HOW DOES A CUT-OVER to automatic equipment in a modern U. S. telephone exchange look to a young man from Saudi Arabia who came to this country to study American telephone methods?

Abdul Rhman Daghstani said he was "impressed."

His arrival at the Millington (Tenn.) Telephone Co. for a six week on-the-job training course under the United States Point Four Program, coincided with the cut-over of a new 1,200-line automatic exchange manufactured by Automatic Electric Co. of Chicago.

Abdul was amazed, he said, "at the ease with which the cut-over took place, and the ability of the Millington plant and operating officials to carry on as usual, without fuss or trouble."

The step-by-step equipment placed in service in the 1.5 million dollar Millington facility was not entirely strange to Abdul, however. He had had some previous experience with such equipment at Jidda in his native Saudi Arabia.

When he returns home, the young Saudi Arabian plans to recommend to his government, which owns and operates the telephone, telegraph and radio systems there, many of the techniques and practices in telephone operation and management which he has observed at Millington. Abdul, with the quiet dignity and graciousness of his native land, told an interviewer how much he appreciated the kindness he had received from everyone on the staff at the Millington Telephone Co., from the president down to the most junior lineman, and that he had benefitted greatly from their careful and always thoughtful direction of his studies and training.

The conversion at Millington which so impressed the young technician from the Middle East, was a posthumous triumph for the late B. L. (Billy) Howard, who had dreamed and planned the improvements in telephone service that automatic equipment could provide.

Billy Howard took over the Millington Telephone Co. and its 40 subscribers in 1928. His wife, Mrs. Bessie B. Howard, worked at his side, he in plant and she in commercial and traffic, to build a company his customers could be proud of.

In addition to being one of the country's telephone pioneers, Billy Howard was a civic leader and benefactor, which has so often been the case with telephone company managers. For many years he provided the town with its only fire department, hooking up the fire rig to his own automobile and towing it to the scene of the fire whenever there was an alarm.

Old-timers recall that Billy Howard was also quite an inventor.

After a series of burglaries in the community, he designed and installed a burglar alarm system that would cause the magneto to drop on the telephone company central office switchboard to inform a central office operator of a burglary. "We averaged three break-ins per week until then and there was never a successful break-in after that," his son, W. S. Howard recalls.

Billy Howard died in 1953 before his dream of automatic telephone service was realized. But his family, and the people he had trained in the telephone business carried on. The son, W. S. Howard, now is president of the company. Cheely Howard, the eldest son, was killed in World War II. Two daughters, B'Lou H. Carter and Billy H. Moten are stockholders and on the board of directors. The mother, Mrs. Bessie B. Howard, is continuing her active interest in the business.

ABDUL RHMAN DAGHSTANI, of Saudi Arabia, is greeted by W. S. HOWARD, president, and W. W. NEWMAN, general manager, of the Millington (Tenn.) Telephone Co., as he arrived for on-the-job training in automatic telephony at Millington.

An average of 70 new subscribers are now being added each month, the company reports, and 64 10-cent paystations have been installed which average $67 a month in revenue.

The company has been awarded The Certificate of Quality Service by the Rural Electrification Administration for inaugurating "a modern, efficient telephone system of an area-wide capacity for the purpose of extending and improving telephone service for farmers and other residents of the rural area."

Front view of the central office building of the new 1.5 million dollar telephone exchange of the Millington Telephone Co.

V V

Testimony in Kansas Court Case Taken By Telephone

The witness could not go to court and the court could not wait for the witness, so the two solved the dilemma by using the telephone.

Attorneys trying a suit in United States District Court needed the testimony of a man ill in his Grinnell, Kan., home. His testimony was taken in direct and cross examination and recorded by an official court reporter.

Telephone company employes who installed the five-telephone setup, said this was the first use of a conference call in court litigation in the western part of the country.

V V

There is no such thing as chance. We have invented this word to express the known effect of every unknown cause. —VOLTAIRE.

WORKING WITH PEOPLE

Concluded from page 32

that we are "bawling them out." Generally, people do not like remarks directed at them to be overheard by others, particularly if the remarks are to any degree personal.

We telephone people have won a reputation for our courtesy to customers. We have learned to be patient and understanding under trying conditions. This courtesy has won our customer's admiration and respect.

We can win the same admiration and respect from our fellow employes if we approach them with the same courtesy. We should be honestly considerate of each person under our supervision. We should try to understand his difficulties. Say "good morning" to him as we meet him at the beginning of the work day. Use his name when you greet him and really mean the greeting. You may be surprised at the results—pleasantly surprised.

Remember occasions that are special to the person—extend good wishes for a happy birthday; a happy anniversary; a pleasant vacation, etc. When there is illness or trouble in his home, we should be very considerate in every way to show our sympathy and understanding.

No matter how busy we may be, let's take enough time to be courteous and thoughtful. It will be time well spent. Your dividends will be happy employes.

Courtesy goes deeper than mere politeness—it is primarily a sincere interest in and consideration for the other fellow.

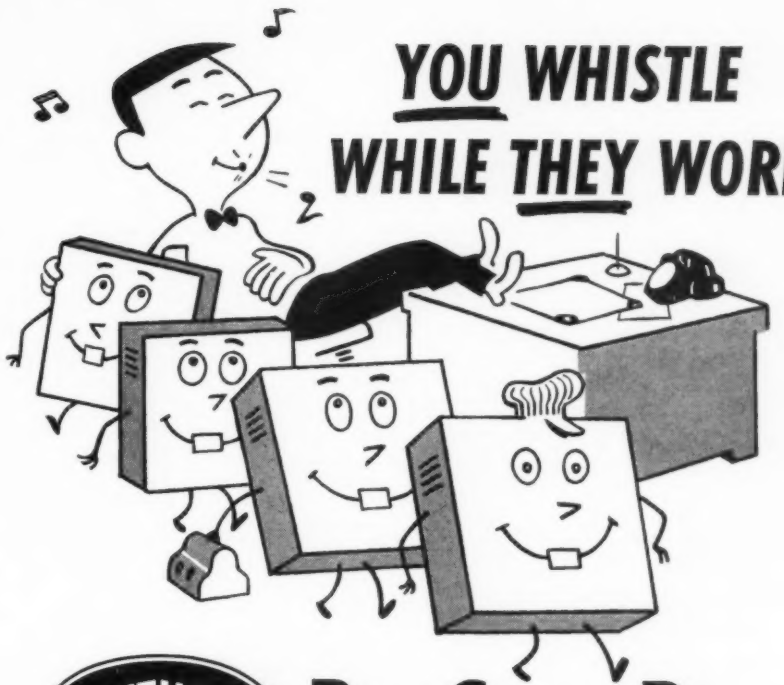
Speech is potent, it's dramatic, it's compelling. Have you ever given thought to its effect on your life?

Speech enables you to communicate your ideas to another; permits you to find out the things you want to know; and allows you to grasp another's knowledge and convert it to your own use. It arrests your attention, stimulates your flow of ideas and frequently is the force which impels you to action.

V V

Names Personnel Manager

Peter J. Long, of Tarboro, N. C., revenue accountant and traveling auditor for the Carolina Telephone & Telegraph Co., Tarboro, has been appointed personnel relations manager of the company. He has been in the accounting department since beginning his telephone career with the company in 1946.



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You can be completely carefree about battery charging with Raytheon RectiChargeRs on the job. They go on year after year following the load automatically — maintaining constant voltage output over the entire load range — keeping batteries fully charged — prolonging battery life by preventing over or undercharging — and require routine inspection only once or twice a year.

Striking proof of dependability is shown in the results of tests made on a RectiChargeR after 15 years of continuous service. Engineers found it as good as ever — not the slightest impairment of electrical qualities — no mechanical deterioration whatever.

In fact there's no reason it couldn't go on for many more years giving the same trouble-free service.

Dependability counts heavily in the Telephone Industry — one reason why Raytheon RectiChargeRs are so widely used.

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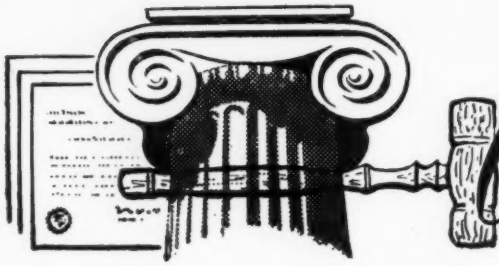
Specify Raytheon RectiChargeRs and RectiFilteRs for completely dependable Telephone service. Your supplier offers a complete line for all requirements. Ask him for details or write direct.

XUM



Courts and Commissions

N. C. Independent Authorized To Increase Rates

Monroe Telephone Co. was authorized by the North Carolina Utilities Commission on Feb. 16 to increase its rates an estimated $36,435 a year, effective Mar. 1 (TELEPHONY, Feb. 19, p. 38).

The company at a recent hearing reported that its rate base was substantially larger because of money spent on improvements and that as a result its rate of return had dwindled. It also said it needed more income to meet capital obligations undertaken to finance the new facilities.

In its order granting the increase, the commission said the company had greatly increased its investment by converting to automatic and by expanding its system, and that it needed more money to earn a fair return.

It said that the $36,435 would net the company about $15,450 after taxes, or enough to raise its rate of return from about 4.5 per cent to between 6.0 and 6.5 per cent.

Commissioner Harry T. Westcott, author of the order, said a number of factors, including the fact that automatic equipment would reduce operating expenses, made exact estimates difficult and for that reason the commission would allow a "reasonable test period" and reserve the right to revise rates later should they prove too high or too low.

Residence rates, now $3.35, $2.60, $2.35 and $2.00 for one, two, four and multi-party service, will go to $4.60, $3.60, $2.75 and $2.50. Business rates now $5.25, $4.75, $4.25 and 3.50 will go to $7.50, $6.00, $5.00 and $4.25.

Kill Intrastate Rate Limit Bill in North Dakota

A bill which would have made it unlawful for telephone companies to charge more for intrastate long distance calls than for interstate calls was killed on Feb. 10 by the North Dakota Senate business and industry committee.

No one appeared to support the bill which was introduced in the state senate by Sen. Carroll Day of Grand Forks.

Opponents of the bill said that if it passed, intrastate revenue would be reduced, and that reduction would result in companies applying for increases in rates for individual telephone subscribers to make up the difference.

R. R. Borman of Fargo, N. D., commercial manager for Northwestern Bell Telephone Co., presented figures show-

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PAGE

Stainless Steel Lashing Wire

—gives a neat and lasting job

• PAGE Stainless Steel Lashing Wire is ideal for lashing insulated conductor cables to a strand messenger—either by Neale or Western Electric machine. Coils of lashing wire are tailored to fit machine specified. Use of PAGE Stainless Steel Lashing Wire insures a far neater and longer lasting job than produced by old-fashioned methods.

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Type 430 • for use with galvanized steel messengers
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All types can be furnished in two sizes—.065 and .045

For full information about PAGE Stainless Steel Lashing Wire, write to our Monessen, Pa., office

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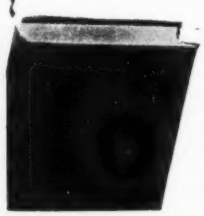
Electricity . . .



Second Edition Just Published

The communications worker who needs reliable, quick knowledge of fundamentals of electrical engineering has in this book all the explanations, illustrations, and applications of electricity he needs in his job. *The explanations and illustrations are taken from the communication field itself*—from telegraphy, telephony, radio and television.

THE ELECTRICAL FUNDAMENTALS of COMMUNICATION

• by Arthur Lemuel Albert
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Second Edition, 531 pages, 6x9
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WRITTEN expressly for radio men, telegraphers, telephony engineers, this book gives fundamentals of electrical engineering accurately, simply, from the point of view of the communication industry. It gives you fundamentals of electronics . . . explains what you need to know about direct current, conductors, resistors, and insulators; discusses such topics as the magnetic field, sources of electric energy, induction, motor and generator action, magnetic hysteresis, eddy currents, and many others. You will find sound, basic information that will help you know and understand electricity.

The Second Edition includes new AIEE and IRE standards and current usage . . . gives additional emphasis to radio fundamentals, making it more useful to those interested in electronic, radio, and television fields.

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ing that the average revenue per call on intrastate tolls calls was 57 cents, while the average for interstate calls is $2.13. He also said plant investment per long distance circuit mile is $162 for intrastate compared with $42 for interstate.

If the measure became law, Mr. Borman said, it was estimated that the rate per customer would have to be increased 75 cents a month to bring a fair return to which a telephone company is entitled by law.

John Nelson of Nome, president of the North Dakota Telephone Association, said that loss of intrastate toll revenue would have to be replaced by asking for other rate increases.

G. L. Jackson of Dawson, president of North Dakota Telephone Cooperatives, said the proposed law would be a blow to the expansion of the rural telephone program through the mutual aid corporations.

V V

Durham (N .C.) Company Asks OK of $500,000 Bond Issue

The Durham Telephone Co. asked the North Carolina Utilities Commission on Feb. 18 for authority to sell $500,000 in 3.75 per cent 25-year first mortgage bonds.

The company, which has exchanges at Durham and Creedmoor, said the money would be used to reimburse its treasury for part of the cost of plant additions and new equipment.

The company last year launched an expansion program which saw some 1 million dollars spent on new equipment and the installation of additional telephones, according to Ralph Van Trine, president, who said the bond sale "would just about complete financing of our 1955 expansion program" which he said calls for spending another million dollars on new switching equipment at downtown and branch exchanges, additional distributing cables and increasing the capacity of existing cables.

Under the company's proposal, the bonds would be sold to the Penn Mutual Life Insurance Co.

V V

N. Y. Party Line Case Referred To County Grand Jury

The case in New York State of Mrs. Mary L. Kayes, who is accused of failing to yield a telephone party line in a fire emergency, on Feb. 14 was referred to the Dutchess County grand jury (TELEPHONY, Feb. 12, p. 18).

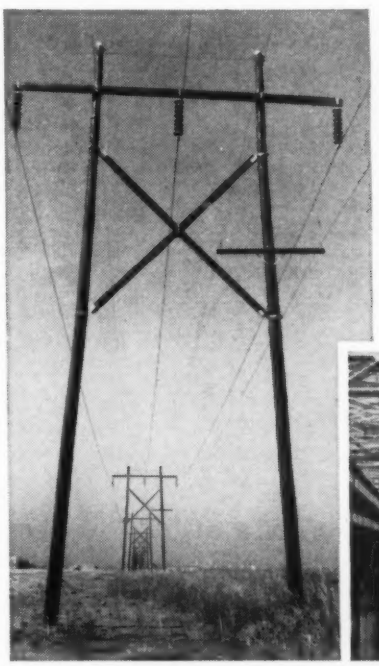
Mrs. Kayes was continued in bail of $500. If found guilty, she faces up to a year in jail or a $500 fine or both.

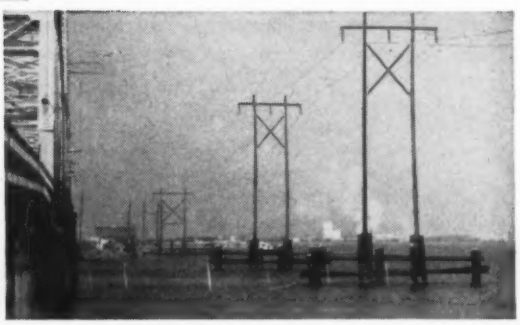
Mrs. Kayes was present, but did not testify, at a hearing into her case be-

Pressure-Creosoted Poles used in river and marsh crossing by Alabama Power Company

• These 70-foot long, pressure-creosoted H-frame pole structures were erected by the Alabama Power Co., Birmingham, to carry a transmission line from Mobile to Silver Hill, Alabama. The poles traversing the Mobile Causeway and the river are exposed to the most extreme conditions possible —marshy land and salt water. So, naturally, the Alabama Power Company selected poles pressure-treated with creosote-coal tar solution . . . because they need *at least* 25 years service from them.

Even under such rigorous conditions as these, 25 years is not much to expect from pressure-creosoted poles. In fact, Creosote is well known as the "30-year-plus" preservative. To get this kind of quality and long life, always insist on clean poles, pressure-treated with Creosote — the proven preservative.





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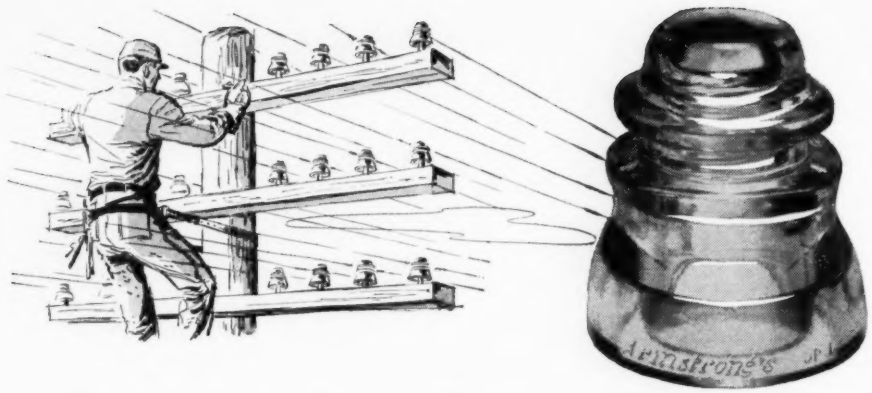

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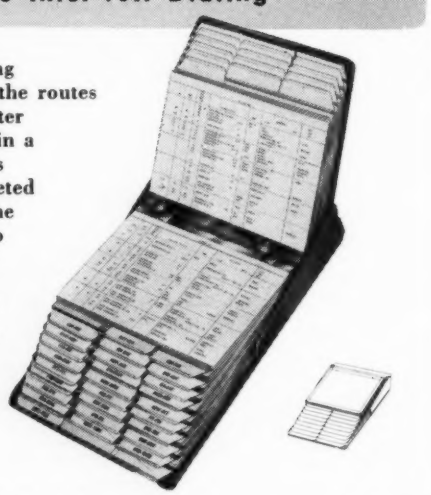

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fore Justice of the Peace William Tompkins, town of Clinton.

The defendant is accused of violating a new law, Section 1242A of the penal law of the state, which makes it a criminal offense not to clear a line in an emergency.

Donald R. Townsend, fire warden, contends that Mrs. Kayes refused to clear the line Jan. 21, so that he could report a fire. He conceded at the Feb. 14 hearing that he had not identified himself as a fire warden when he asked Mrs. Kayes to yield the line.

Mr. Tompkins said he had found sufficient prima-facie evidence to refer the case to the grand jury.

V V

Miss. Commission to Investigate Southern Bell Rates

The Mississippi Public Service Commission on Jan. 26 ordered Southern Bell Telephone & Telegraph Co. to show cause on Feb. 1 why there should not be an investigation of intrastate telephone rates and charges.

Lex White, secretary of the commission, said the company would be asked to show its operating expenses in Mississippi and comparative rates in other states at the first session of the investigation.

V V

Negotiates for Ansonville, N. C. Independent System

L. D. Garibaldi of Charlotte, N. C., president of the Western Carolina Telephone Co., the Matthews & Waxhaw Telephone Co. and the Anson Telephone Co., is negotiating to buy the Ansonville, N. C., telephone system from United Telephone Co. of the Carolinas, Inc., Southern Pines, N. C., and make it part of the Anson Telephone Co.

At a conference with the North Carolina Utilities Commission and United officials in Raleigh on Feb. 16 he was told by United representatives that they would be willing to sell.

United serves Ansonville from an exchange at Norwood, and Mr. Garibaldi's company would serve it with a satellite exchange, although it was said that time would be needed to work out details and set up the necessary facilities.

Mr. Garibaldi recently applied to the commission for authority to consolidate the Matthews-Waxhaw company and his newly acquired Anson Telephone Co. The two companies then would be known as the North Carolina Telephone Co., and Ansonville would be part of that (TELEPHONY, Jan. 8, p. 46).

Mr. Garibaldi said that the Anson

company will take over the United's franchise in Ansonville and upper Anson County as soon as an agreement is reached on division of territory. He said the Wadesboro exchange probably will get the area to the Rocky River.

Improvements will be made next fall, he said, including installation of automatic equipment, with relay exchanges at Ansonville, Morven and probably in Burnsville township.

V V

Virginia Independent Gains Increase in Rates

The Virginia Corporation Commission on Jan. 28 approved rate increases amounting to about $6,000 per year additional revenue for Central Telephone Co., Charlottesville. (TELEPHONY, Feb. 12, p. 36.)

At a Jan. 17 hearing, officials had asked the commission for $10,000 additional revenue, but the order called company's proposal "unreasonable and unjust."

Under the terms of the commission ruling, rates will be increased on Mar. 1. Business rates for one-party lines will go up from $5.00 to $6.25; four-party lines, $3.50 to $4.50, and rural lines, $3.50 to $4.50. Residential rates: One-party, from $4.00 to $4.75; four-party, $3.00 to $3.75, and rural lines, $3.00 to $3.75.

V V

Lincoln T&T Asks Permission To Extend Service

The Lincoln Telephone & Telegraph Co. recently asked the Nebraska State Railway Commission for permission to extend service from its Steinauer exchange to Pawnee City.

The extension would put the Steinauer exchange in a higher rate category with increases ranging from 10 to 75 cents.

In support of its application, the Lincoln firm submitted a petition signed by 94 per cent of the Steinauer exchange patrons.

V V

Asks That Ohio Commission Look Into Long Distance Rate Raise

Pickaway County Prosecutor William Ammer asked the Ohio Public Utilities Commission on Feb. 3 to investigate an intrastate long distance rate increase granted the Ohio Consolidated Telephone Co., Portsmouth, without advance notice or hearing for the company's subscribers.

In a letter to the commission, Mr. Ammer declared the rate raise to be illegal and requested a public hearing, to be held if possible in Pickaway County.

R. L. Moulton, chairman of the Ohio

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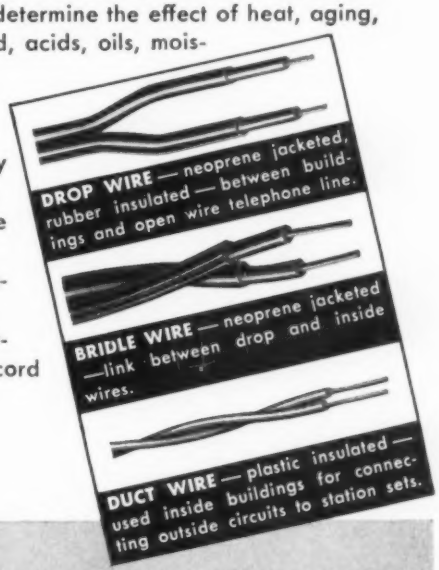

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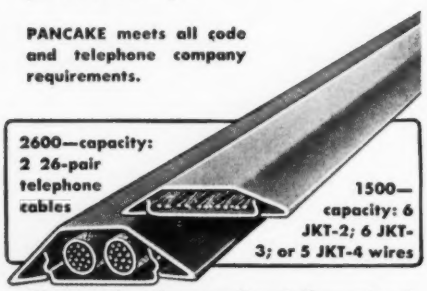

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commission, said a provision in the tariffs of practically all the Independents provides that "their charges for intrastate long distance service shall at all times be concurrent with those of Ohio Bell Telephone Co."

In asking to call a meeting of the commission to hear protests from Ohio Consolidated customers, Mr. Ammer challenged the legality of any arrangement whereby, in effect, a long distance rate raise for Ohio Bell would mean automatically a similar increase for all the state's Independents.

V V

New York Lawyer Argues Case by Telephone

A lawyer of Cooperstown, N. Y., stalled in a snowstorm, argued his case by telephone and his motion was granted.

Joseph P. Leary, attorney for a defendant in a forgery case, reached Sharon Springs, N. Y., before stopping at a garage. He telephoned to Justice Francis Bergan of the appellate division at Albany, and presented his reasons for asking that his client be allowed to appeal to the Court of Appeals.

The district attorney listened in on an extension and made his presentation the same way.

The jurist then granted Mr. Leary permission to appeal an appellate division decision upholding the conviction of his client for second-degree forgery.

V V

Woman Injured By Falling Roof Of Paystation; Gets Settlement

A New Jersey woman who was injured when the ceiling of a telephone booth fell on her received $3,500 on Feb. 16 in settlement of a suit brought against the New York Telephone Co. Other defendants were the trustee of Columbia University as owners of Rockefeller Center, and Rockefeller Center, Inc., managers of the property where the accident occurred.

According to the complaint, the woman was making a call in the Time & Life building in Rockefeller Center, New York City, on Oct. 20, 1950, when part of the booth's ceiling fell.

V V

New York Bell Asks Cut In Franchise Valuation

The New York Telephone Co. will ask the state supreme court on Apr. 22 to cut 4.5 million dollars from the special franchise valuation set up by the State Board of Equalization and Assessment against its Buffalo properties.

On Nov. 11, 1954, the state board held that the value for the telephone company franchise in Buffalo for 1955 tax purposes was $11,654,565.

The telephone company appealed the valuation and, on Dec. 14, the state board confirmed its figures as proper.

V V

10-Cent Paystation Charge OKd For Pennsylvania Company

The Buffalo Valley Telephone Co., Lewisburg, has Pennsylvania Public Utility Commission authorization to double its five-cent paystation charge on Feb. 23.

The company serves 5,750 customers in Northumberland and Union counties. The commission said the increase would make the company's charge in line with that of other telephone companies in Pennsylvania.

The company estimated the increase will produce an extra $583 a year.

V V

Approval to Serve Granted By Missouri Commission

The Chariton Valley Telephone Corp. on Jan. 31 received word from the Missouri Public Service Commission that a certificate of convenience and necessity had been issued for the Bynumville area to be included with the Bucklin and Ethel areas of the company (TELEPHONY, Oct. 2, 1954, p. 36).

Headquarters of the newly organized corporation will be at Bucklin, it is reported.

The new corporation has received a loan allocation from REA.

V V

California Independent Gets Authority to Raise Rates

The Delta Telephone & Telegraph Co., Courtland, was authorized by the California Public Utilities Commission recently to raise rates at its Courtland, Isleton and Walnut Grove exchanges (TELEPHONY, July 24, 1954, p. 36).

The new rates for the company, which serves about 1,700 users will be effective March 1.

One-party residence rates will be raised from $2.75 to $3.25; two-party from $2.25 to $2.75; one-party business from $3.65 to $5.85, and two-party business from $2.75 to $4.50.

V V

Pennsylvania Independent Gains Authority for Rate Raise

The Pennsylvania Public Utility Commission was asked on Feb. 3 to authorize an estimated $3,000 annual rate increase for 938 customers of the Home Telephone Co. of Sheffield.

The proposed increase was filed to become effective Apr. 1.

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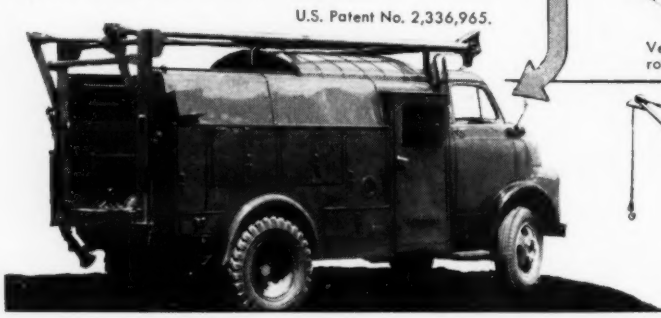
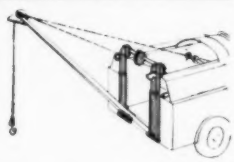
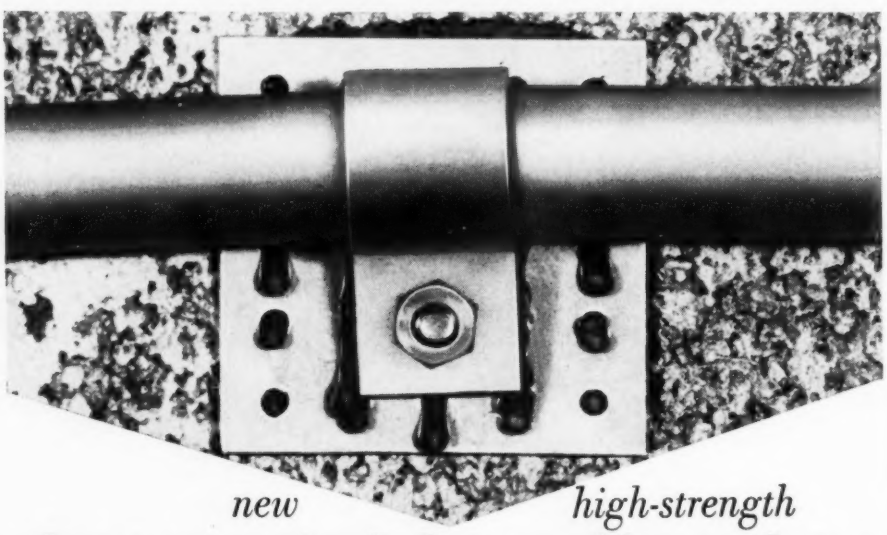


Derrick raised by simply engaging the winch.

Vertical position—winch rotation reversed.



Derrick is locked in operating position.



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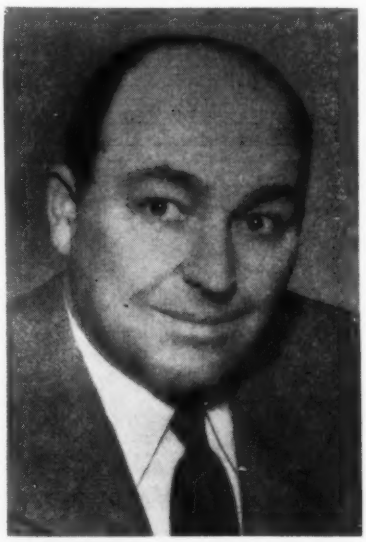
Warren B. Clay, Independent Telephone Leader, Dies

Warren B. Clay of Hutchinson, Minn., prominent and popular leader in state and national Independent telephone affairs, died suddenly of a heart attack on Feb. 20 at his home in Hutchinson.

His death occurred only a few days following his attendance at the annual convention of the Minnesota Telephone Association in St. Paul, at which he took a prominent part.

Few men have attained the prominence and position of leadership held by Mr. Clay in the Independent telephone industry in the comparatively short time he served the industry. The confidence placed in him by his associates in the business was a tribute to his ability, sound judgment and sincere loyalty to and faith in the Independent industry.



W. B. CLAY

Mr. Clay was "born" into the telephone business in Hutchinson where his father, Well Clay, publisher of the local newspaper, founded the Hutchinson Telephone Co. in 1898. Twelve years later — in 1910 — Warren Clay was born, and during his early years he helped his father by doing odd jobs in the telephone office and later working on the inside and outside plants.

Following his return to Hutchinson from attending Carleton College in Northfield, Minn., in 1931, he became associated with the Hutchinson company on a full-time basis. He worked as a lineman until 1939, when he was promoted to assistant manager. In 1941, he assumed the management of the company as manager and secretary.

In 1943, Mr. Clay planned and supervised the conversion of the Hutchinson exchange to automatic operation—said to be the first Independent exchange in Minnesota to be so converted. Since

the conversion the exchange has grown from 1,470 stations to 2,900.

Mr. Clay served as president of the Minnesota Telephone Association, which his father had helped found, and was a director and a member of the association's executive committee for many years.

He also had been a director of the United States Independent Telephone Association since 1946 and was its immediate past president, serving in 1953-54. In addition he was a member of USITA executive committee and had served on numerous other important committees in both the state and national associations.

Aside from his telephone industry activities, Mr. Clay devoted much time to public service in his home town and state. He served two terms as mayor of Hutchinson, and was a member of the city's school and library boards. As mayor in 1946 he led a committee which persuaded the Minnesota Mining & Manufacturing Co. of St. Paul, to open a "Scotch Tape" factory in Hutchinson. He served as chairman of the Hutchinson Civic and Commerce Association's Good Roads Committee, which was instrumental in securing the all-weather highways that now radiate from Hutchinson. He was also a member of the board of directors of Citizens Bank of Hutchinson.

During World War II, he was chairman of the Hutchinson ration board and later chairman of the local Office of Price Administration. In 1949-50, he served as chairman of the education committee of the Minnesota Efficiency in Government Commission—a "little Hoover committee" of Minnesota. For many years he was interested in politics, and was a candidate for the Minnesota Senate, and a Presidential Elector. He was a member of his county and state Republican Party committees.

He is survived by his widow, Elaine; two daughters, Suzanne and Joanne; one son, Walter; and his father and mother, Mr. and Mrs. Well Clay; two sisters, Mrs. Josephine Wedge of Zumbrota, Minn., and Mrs. Elizabeth Allen of Cranford, N. J., and two brothers, James and Mark, both of Arlington, Va.

V V

"We will accept nothing over and above freedom. And as long as we live that—and believe in it—and do our work in that spirit, to my mind, America is not only safe but America is going forward in the expanding and growing economy that will bring greater and greater happiness to our people, security for us, and promote peace in the world." — DWIGHT D. EISENHOWER, *President of the United States.*

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FCC Weighs Testimony in Tomball (Tex.) Company Case

The Federal Communications Commission, following hearings on Feb. 7 and 8, requested that briefs be filed within 20 days and took under advisement the joint petition of the Texas Telephone Association and the United States Independent Telephone Association to intervene in the proposed purchase of the Tomball (Tex.) Telephone Co. by the Southwestern Bell Telephone Co. (TELEPHONY, Feb. 12, p. 35).

The Tomball company is an Independent exchange located 30 miles north of Houston.

Bradford Ross was the attorney for the Texas association and the USITA, and John T. Quisenberry headed counsel for AT&T.

It was contended by the Independent groups that:

(1) The proposed purchase price of the Tomball property is excessive and approval by the FCC would establish a precedent for the sale of other Independent properties without regard to the relationship between reasonable value and sale price.

(2) That acquisition by Southwestern Bell would strengthen the Bell position at the expense of the Independent branch, and also deprive Independent manufacturers of an outlet for their product.

(3) That Southwestern Bell negotiated the option to buy the Tomball property without notice to the Independents.

(4) That the public interest would not be served if the FCC were to permit encroachment by Bell into areas where Independents stand ready and willing to provide service equal to that proposed by the Bell System.

Southwestern Bell's testimony was designed to show that there is a close community of interest between Tomball and Houston, that Tomball is an integral economic unit of the Houston metropolitan area, and that the public interest and the needs of the subscribers in Tomball can best be served if Southwestern Bell is permitted to acquire, rehabilitate, and operate the exchange. A decision by FCC is expected within the next 60 days.

HUGH A. BARNHART (right), president of the Rochester (Ind.) Telephone Co., is sworn in as director of the communications division of the Business & Defense Services Administration, U. S. Department of Commerce (TELEPHONY, Feb. 5, p. 54). Pictured administering the oath of office is BDSA Administrator CHARLES F. HONEYWELL. Mr. Barnhart is the first representative of a small, Independent telephone company to occupy the post as director of the communications division since BDSA was established on Oct. 1, 1953. He is widely known in the communications industry, with which he has been associated practically all of his adult life. Mr. Barnhart is the latest member of a staff of approximately 30 experienced industrialists and businessmen who currently are serving BDSA on loan from their companies and without cost to the Government. In the position of division director he succeeds Albert H. Holley of Brooklyn, N. Y., division manager of the New York Telephone Co.

Stockholders Approve Sale of North Dakota Company

Sale of all real and personal property of the Berthold (N. D.) Farmers Telephone Co. to the Souris River Telephone Mutual Aid Corp. received formal approval at a special stockholders meeting recently, J. S. Cox, secretary for the company, reported (TELEPHONY, Mar. 27, 1954, p. 30).

The sale originally was made in February, 1953, by warranty deed executed by Lester N. Lautenschlager, president of the Berthold Farmers Telephone Co., and Mr. Cox.

Later, however, the purchasing corporation found it necessary, in order to get funds from the REA, for a two-thirds vote of approval to be given the sale by the stockholders of the Berthold company, Mr. Cox said.

V V

Fire Losses $75,265,000 in January, NBFU Reports

Estimated fire losses in the United States during January amounted to $75,265,000, the National Board of Fire Underwriters (NBFU) has reported.

According to Lewis A. Vincent, NBFU's general manager, this $75,265,000 loss represents a decrease of 13.0 per cent from losses of $86,493,000 reported for January, 1954, and a decrease of 10.3 per cent from losses of $83,881,000 for December, 1954.

These estimated insured losses include an allowance for uninsured and unreported losses.

V V

Eisenhower Nominates New Wage-Hour Administrator

President Eisenhower has nominated Newell Brown, now director of employment security of the New Hampshire Department of Labor, to be the Wage-Hour Administrator.

Mr. Brown served as secretary to Presidential Assistant Sherman Adams when the latter was governor of New Hampshire.

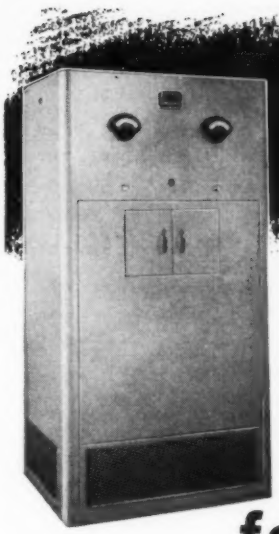
When confirmed Mr. Brown will succeed William R. McComb who has been the administrator since 1947.

The position has no fixed term, the incumbent serving at the pleasure of the President.

V V

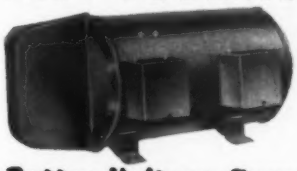
Newly Organized Independent To Serve Rural Missouri Area

The Kingdom Telephone Co., Fulton, Mo., recently organized to provide automatic service to rural parts of Callaway County, is seeking an initial $160,000 from the REA. Officials of REA and the temporary board of directors



ADD A FLOTROL

TO YOUR ROTARY EQUIPMENT



for: • Better Voltage Regulation • Sizeable Power Bill Savings

A telephone exchange now using DC generators for charging the batteries can add one or more FLOTROLS and immediately obtain the precise voltage regulation characteristics of the FLOTROL for the entire exchange. The high efficiency of the FLOTROL will greatly reduce power consumption during those hours of the day when the FLOTROL alone is sufficient to carry the entire load; generators can be shut off during light load periods, thereby reducing the wear on the rotating equipment. By installation of FLOTROL capacity sufficient to carry the entire normal load, rotating equipment showing signs of wear can be saved for standby service, continuing its life indefinitely. The advantages obtainable from this type of installation are tremendous. For further information, send for Bulletin 161.

FLOTROL — PARTNERS IN DEPENDABILITY — SUB-CYCLE

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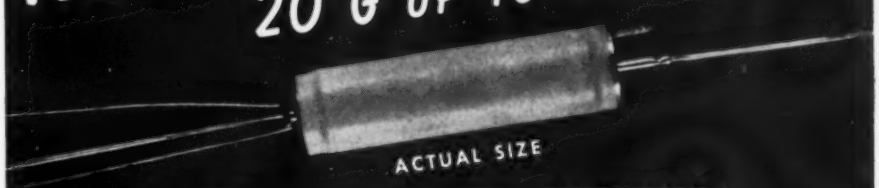

ACTUAL SIZE

Limited quantity of model shop samples available — submit your specifications and requirements with your inquiry.

DIMENSIONS: 15/32" diam. x 1 3/4" long
WEIGHT: less than 1 oz.
OPERATING POWER: 100 MW Max.
CONTACTS: spdt—2 amp. at 24 V DC Resistive load
VIBRATION RESISTANCE: 20 G up to 2000 CPS (cycles per sec.)

PHOTO Martin Matador, courtesy The Glenn L. Martin Company

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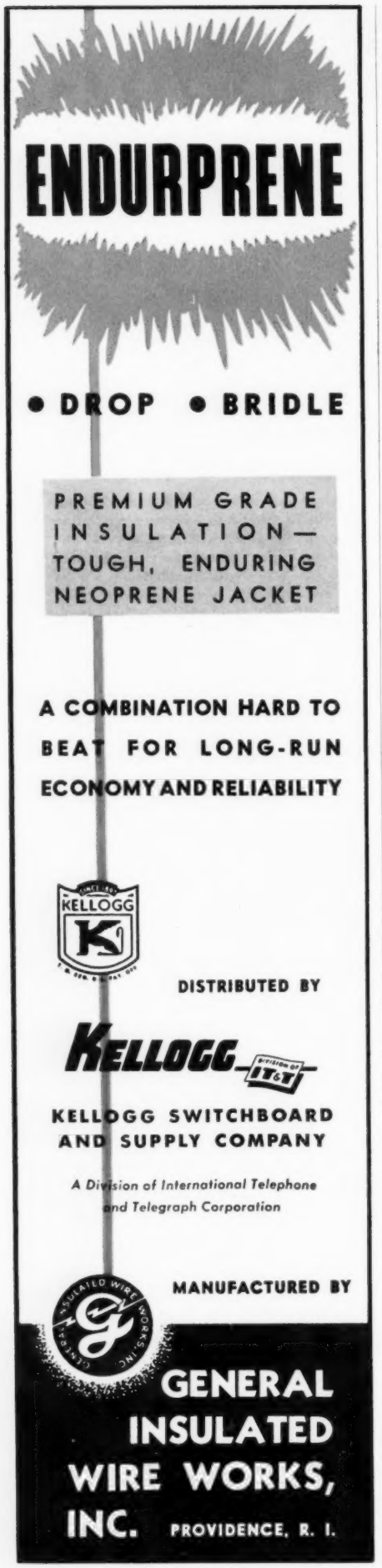
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of the new company on Jan. 29 discussed plans for the system, and also drew up contracts to purchase the Auxvasse and Mokane telephone exchanges.

R. C. Keown of Holts Summit has been named chairman of the board and Owen McCammon was appointed secretary-treasurer and trustee. Others at the meeting included L. F. Dickrader, Cristy Krebs, M. A. Bigson, Travis Million, Herbert Dixon, Carl Bunting, Henry Schultz, members of the board, and Gregory Stockard, attorney.

V V

OBITUARY

FRED H. BROWN, of Copperweld Steel Co.'s wire and cable division, was killed in an auto accident during a storm on Feb. 11. He was district sales manager, operating out of Richmond, Va.

His many years spent serving the power, communication and railroad industries in the East made Mr. Brown a host of friends who will be sorry to learn of his untimely death.

V V

More Telephone Employes Perform Life Saving Acts

One day last summer, John D. Hodges, Northwestern Bell Telephone Co. construction foreman, rescued a fellow worker from possible electrocution. On Feb. 17, he was honored for his heroic action with awards from his company, the National Safety Council, and the American Red Cross.

Mr. Hodges, who has 18 years serv-

1955 CONVENTIONS

Texas Telephone Association, Plaza Hotel, San Antonio, Mar. 14 and 15.

Nebraska Telephone Association, Cornhusker Hotel, Lincoln, Mar. 22 and 23.

Ohio Independent Telephone Association, Deshler Hilton Hotel, Columbus, Mar. 28, 29 and 30.

United States Independent Telephone Association Executives Conference, Belleview-Biltmore Hotel, Belleair, Fla., Apr. 4 and 5.

Iowa Independent Telephone Association, Fort Des Moines Hotel, Des Moines, Apr. 12 and 13.

North Dakota Telephone Association (hotel unannounced), Fargo, Apr. 25 and 26.

Wisconsin State Telephone Association, Loraine Hotel, Madison, May 4 and 5.

Indiana Telephone Association, Claypool Hotel, Indianapolis, May 11 and 12.

The Illinois Telephone Association, Pere Marquette Hotel, Peoria, May 19 and 20.

Kansas-Missouri Telephone Associations (joint convention), Town House Hotel, Kansas City, Kan., May 23 and 24.

Pennsylvania Independent Telephone Association, Pocono Manor Inn, Pocono Manor, June 1 and 2.

California Independent Telephone Association, Ambassador Hotel, Los Angeles, June 9 and 10.

New York State Telephone Association, Scaroon Manor Hotel, Schroon Lake, June 13, 14 and 15.

Oregon-Washington Independent Telephone Associations (joint convention), Olympic Hotel, Seattle, Wash., June 17 and 18.

Michigan Independent Telephone Association, Pantlind Hotel, Grand Rapids, Sept. 8 and 9.

Rocky Mountain Telephone Association, Hotel Utah, Salt Lake City, Utah, Sept. 15 and 16.

Arkansas Telephone Association, Arlington Hotel, Hot Springs, Sept. 26 and 27.

United States Independent Telephone Association (annual convention), Conrad Hilton Hotel, Chicago, Oct. 10, 11 and 12.

North Carolina Independent Telephone Association, The Carolina Hotel, Pinehurst, Oct. 17 and 18.

Oklahoma Telephone Association, Huckins Hotel, Oklahoma City, Oct. 20 and 21.

Virginia-West Virginia Independent Telephone Associations (joint convention) Hotel Roanoke, Roanoke, Va., Oct. 20 and 21.

Alabama-Mississippi Telephone Association, Thomas Jefferson Hotel, Birmingham, Ala., Nov. 14 and 15.

ice with the telephone company, received the Bell System's Vail Silver Medal and a check for $500 from L. O. Arstad, the company's Nebraska general manager. The local chapter of the National Safety Council presented that organization's president's medal which is awarded for successful resuscitation through artificial respiration. The Omaha chapter of the Red Cross awarded Mr. Hodges an American Red Cross certificate of merit, given for saving a life.

The rescue occurred on Aug. 24 when a crew was pulling in a new telephone line. Dale Fletcher had climbed nearly up a pole when a power line dropped from a broken insulator atop the pole and struck him across the shoulder, knocking him unconscious and causing severe burns of the upper back and left arm. He fell clear and hung suspended from the pole by his safety belt. Hodges climbed the pole and lowered Fletcher to the ground, and then, with other members of the crew, Douglas Eddy Jr., Robert J. Mathews and James A. Timmins, applied artificial respiration until the rescue unit arrived. The crew received a joint company citation and Messrs. Eddy, Mathews, and Timmins were presented with individual citations.

Mr. Hodges is the 14th Nebraska resident to receive the Red Cross certificate of merit. His award is the 526th given in the 16-state midwestern Red Cross area in 41 years.

* * *

In Philadelphia, an alert telephone operator who heard the whispered words "I think it's gas" on her line saved the life of a West Philadelphia woman on Feb. 6.

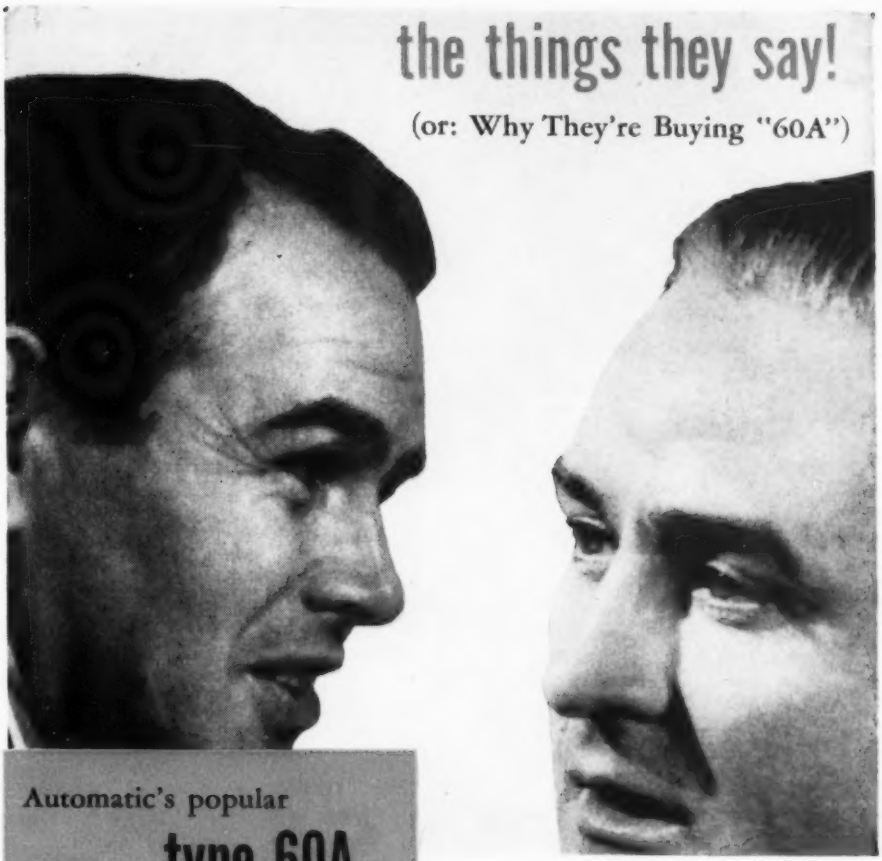
Lavonne Moyer checked the subscriber lists when her questions were not answered and the line remained open. She then telephoned the number of a man who lived next door to the house where the call originated.

The neighbor found Mrs. Edna Quinn, 43, slumped in a chair with the telephone still on her lap. Police summoned by Miss Moyer's supervisor called a rescue squad which took the woman to Misericordia Hospital after reviving her with oxygen.

* * *

A 55-year-old installer-repairman for the New York Telephone Co. received the American National Red Cross Certificate of Merit for saving five lives through prompt application of first aid, it was reported on Feb. 19.

Clarence E. Bogart, of Buffalo, was cited for saving the lives of Mr. and Mrs. Stephen Orwat, their two chil-



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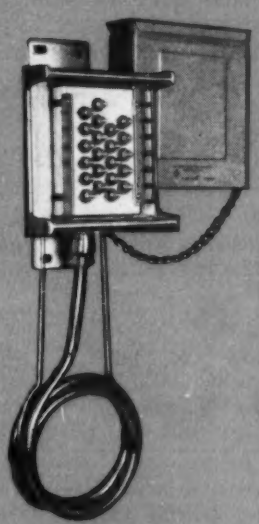

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dren, and Robert Dolka after an automobile accident on May 23, 1954.

Mr. Bogart was in a police station when a serious accident was reported. He drove to the scene in his own car and gave first aid, bandaging the injured persons to control bleeding, making them as comfortable as possible with available blankets to prevent further shock and directing their movement into ambulances.

V V

Telephone Operators Save Life Of Little Girl Who Ate Poison

Late in January, long distance telephone operators in New York and Chicago teamed up to win an early morning race against death for a little girl who swallowed a patented silver polish in her suburban Chicago home.

Judith Burke, 2, found the polish under the sink when her mother wasn't looking. It smelled like peppermint. Its label warned: "Keep away from children" but little Judy couldn't read. Seconds later she was screaming in agony.

Her father, a Chicago attorney, rushed her to a hospital in Park Ridge, Ill. Physicians found no mention of the polish in their "poison control manual," a roster of household poisons and their antidotes.

An hour later the parents were informed the child wasn't responding to standard treatment. In desperation the father picked up the telephone, read the label to the operator and asked her to help.

The manufacturers were located in New York. Their offices were closed for the weekend. The firm is a corporate name with no emergency numbers listed. Finally someone asked: "Who pays the bills?"

A New York Telephone Co. accountant was routed out of bed. He raced to the office where records showed a name. Eleven calls in the five buroughs of New York City finally located an executive. Seconds later the antidote and polish formula were being dictated to the doctors. The child is expected to live.

The telephone operators beat the police by more than 10 minutes. They were admitted to the polish manufacturer's office by a night watchman to search for a name.

V V

General of Ohio to Build Multi-Purpose Building

A new $200,000 multi-purpose building for the General Telephone Co. of Ohio will be constructed in Marion, O., this summer, Clare E. Williams, president, announced recently. The new building will be used to replace rented quarters which company officials stated are inadequate for expanding operations in this area.

The building will encompass more than 16,000 square feet of floor space and will house the company's central division administrative and engineering offices.

Alongside the new building there will be a storage garage with capacity of 48 company vehicles. The company will also provide parking space for employes at the building site.

V V

"We have the resources—physical, human, technological, and all the others—to keep forging ahead for many years to come."—NATIONAL ASSOCIATION OF MANUFACTURERS.

V V

» Economists of the National Association of Manufacturers have found that in 1975 a 70 per cent increase in real capita income may be anticipated "if our economy continues to provide incentives for people to produce, to invent, and to devise better ways of providing the increased goods and service our growing population will require."

Gents: We're gonna use this space this week publicly to express our thanks to the very capable Larry O'Lilla. (The apostrophe is ours. We're promoting Larry to an Irishman.) The many extra subscribers now being served by the Chatham Telephone Company, away up there in Michigan, are grateful for the well-executed expansion program. One old-timer remarked to me in excited French-English that he would now be able to call the doctor when his wife required care.

I wonder if you folks in the telephone business will forgive me if I again assert we have the *"finest telephone subscriber carrier that it is possible to design and build."*

Our carrier should give you years and years of dependable service and bring to you many expressions of gratitude from the many new families thus provided with service.

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Telephones Prove Useful to Transmit Radioactive Signals

Radioactive signals from radium in Reno, Nev., were transmitted automatically and received in Washington, D.C., over long distance telephone on Feb. 7. It was the first public demonstration of a new long-range radiation monitoring system developed for the Atomic Energy Commission (AEC).

Developed by scientists of the National Bureau of Standards (NBS), the system was described by them as one which could enable a single operator to "obtain radiation data from stations anywhere in the United States without leaving his desk."

AEC officials said they are using the system in connection with atomic tests in Nevada but only in an area extending up to 250 miles in all directions from the test site. That area includes parts of Nevada, Utah, Arizona, and California.

The objective is to cut down on the number of mobile teams once required to patrol the area to keep tabs on radioactive fallout.

The description given by the NBS—while not amplified—left open to speculation whether the system could provide valuable civil defense aid in the event of an A-bomb or H-bomb attack.

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300 MAGNETO COMMON BATTERY SOUTHEAST KANSAS, good rates, best schools, population 800. Reason for selling—health. Terms—trade part cash. Write Box No. 3636, c/o

AVAILABLE ABOUT MAY 1, 1955, seven year old Kellogg 4-position, Universal switchboard. 400 line multiple. 10 Magneto drops, 15 toll trunks (R.D.), 6 dial trunks (R.D.), 2 dial trunks (C.B.), M.D.F. (707 pair), 6 amp charger, batteries. For further details write Deposit Telephone Co., Deposit, N. Y.

RELAYMATIC BOARD—100 line, 89 installed; 13 links; Raytheon Electric 12 amp. charger; Batteries; spare parts, six long distance trunks CX type (two groups) — $6,000.00. Over 300—1000 Series Kelloggs @ $16.00 each and 305 Western Electric telephones @ $18.00 each. (wall and desk). Complete works $10,000. The Cohassett Beach Telephone Co., P.O. Box 58, Aberdeen, Wash.

FOR SALE

ONE STROMBERG TIME CLOCK SYSTEM complete with 16 clocks, card racks, central control panel, Gould storage batteries and rectifier. Price — $750.00 FOB Reading, Pennsylvania, as is where is. Contact John F. McGlinn, P.O. Box 1352, Reading, Pa.

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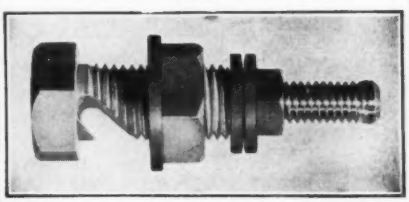

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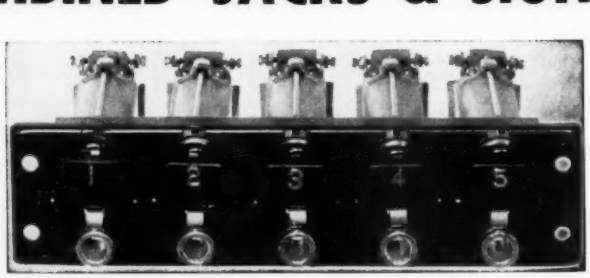

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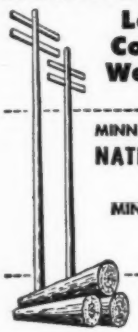
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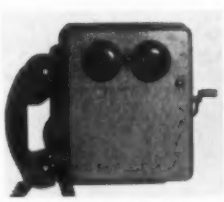
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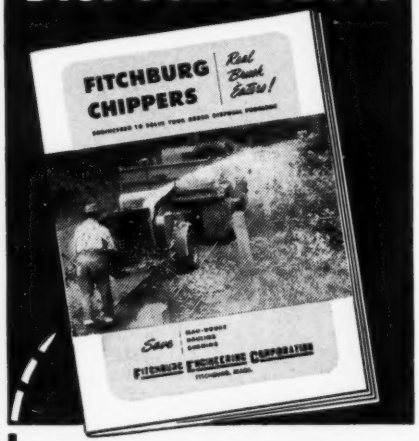

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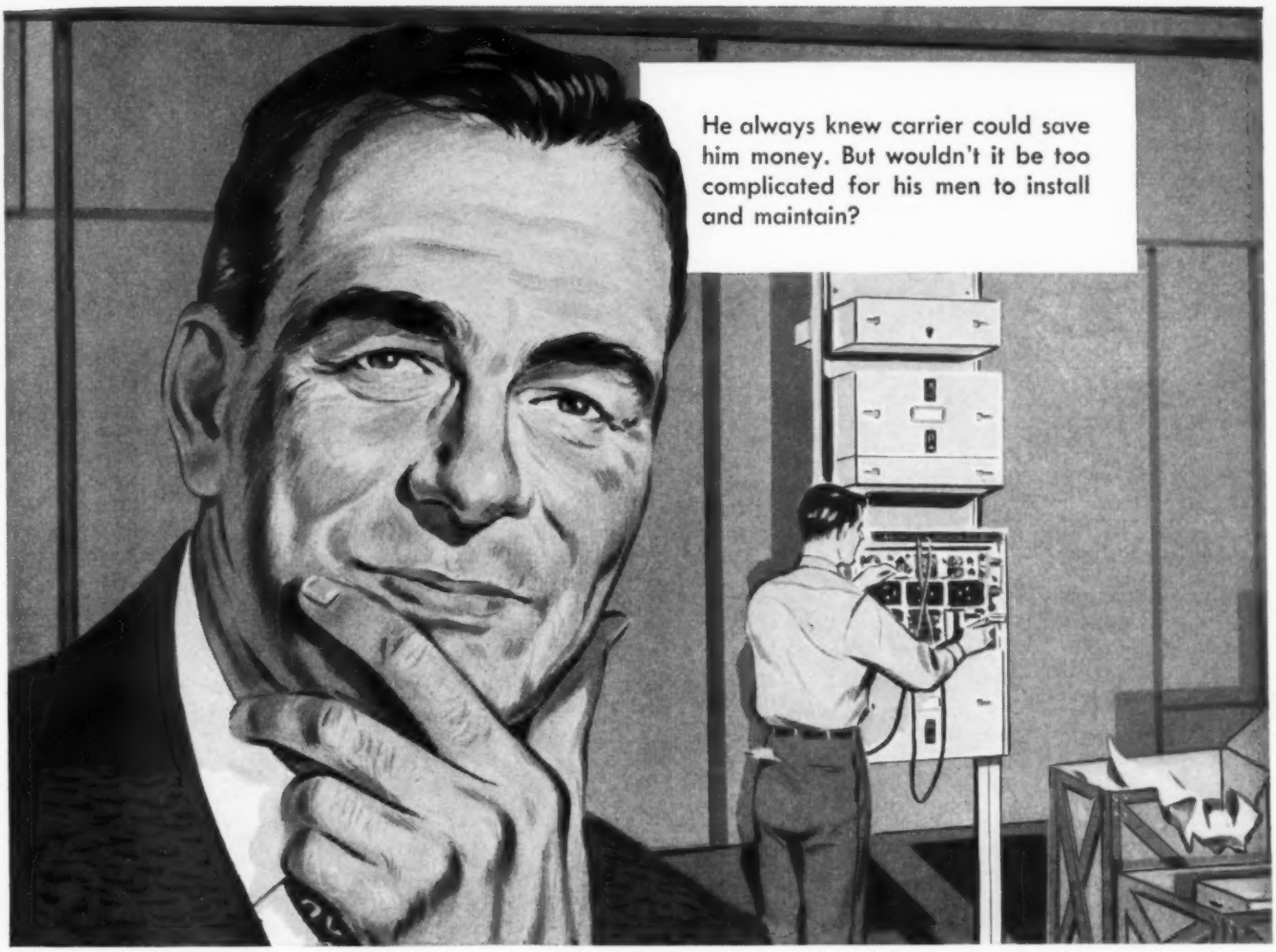

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